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April 12, 2004

Assistant Attorney General I. Andrew Goldberg  
Environmental Protection Division  
200 Portland Street  
Boston, Massachusetts 02114

Subject: Brockton, Massachusetts  
Wastewater Collection/Treatment Facility  
Consent Decree Civil Action No.88-3194  
2004 - 1<sup>st</sup> Quarter Report

Dear Mr. Goldberg:

On behalf of the City of Brockton, we submit a quarterly report for your consideration regarding the City's Consent Decree Civil Action with the Commonwealth. This information is an update of the individual ongoing wastewater projects within the City.

1. Miscellaneous Sewer Pipe Repair and Replacement

The City has been performing minor sewer rehabilitation based upon the findings of the City Wide Sewer System Evaluation Survey (SSES). As a result of this work, several gallons of extraneous flow have been removed from the sewer system. The attached Table 1 is a summary of sewer system repairs documented by the Brockton Sewer Department.

2. Phase II Sewer System Rehabilitation

As part of FY03 budgeting, the City included another \$2,000,000 for the Phase II Sewer System Rehabilitation project. The design of this work has been completed and public bidding is expected in June 2004. This project is expected to eliminate significant sources of I/I.

3. Phase III Sewer System Rehabilitation

As part of FY04 budgeting, the City included funds for the Phase III Sewer System Rehabilitation design. The funding for construction will be provided



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through the State Revolving Loan fund. Approximately \$2,000,000 is available for construction of this project. The design of this work has been completed and public bidding is expected in May 2004. This project is expected to eliminate significant sources of I/I.

4. Inflow Removal Program

The City has been proceeding with an aggressive private and public inflow removal program. This work includes the removal of sump pumps, roof leaders and other sources of extraneous flow that were identified during previous studies. The Department of Public Works is assisting property owners and other municipal departments with the procedures and solutions for removal of these illegal connections. Since the inception of this program, approximately 3.0mgd of inflow has been removed from the collection system.

5. Pursuit of SRF Funds

DEP has listed Brockton eligible for funding as part of the SRF program. The FY03 and FY04 Intended Use Plans identify that \$40 million of the total \$59.7 million has been committed for treatment and sewer system improvements in Brockton. The City has appropriated \$61 million for all wastewater system improvements and intends to apply for additional funding assistance.

7. I/I Reduction by Whitman and Abington

Brockton continues to negotiate with the Towns of Abington and Whitman regarding the reduction of extraneous flows tributary from their sewer systems. Abington has failed to provide a summary of progress made during the 1<sup>st</sup> quarter of 2004.

The Town of Whitman is in the process of conducting I/I investigations to quantify and locate sources of extraneous flow. There have been nine continuous flow meters installed throughout the Town. The flow data will be used to quantify I/I and prioritize areas of Town based on the rate of this extraneous flow. This information will be used to recommend and conduct follow-up field investigations to locate sources of I/I. The Town will provide a report summarizing these efforts.



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We trust this information meets your expectations regarding the required progress report. Please feel free to contact me regarding any questions or comments on this information.

Very truly yours,

A handwritten signature in black ink, appearing to read 'Gregory A. Roy', with a long, sweeping flourish extending to the right.

Gregory A. Roy, P.E.  
Principal  
Camp Dresser & McKee Inc.

cc: Thomas Plouffe, City Solicitor  
J. Condon, Chief Financial Officer  
David Norton, Interim DPW Director  
Eric Hall, EPA  
David DiLorenzo, Joseph Shepherd, MADEP, SER  
Jack Hamm, MADEP, Boston  
Patrick D. Hughes, CDM

**Table 1**  
**City of Brockton, Massachusetts**  
**Consent Decree, Civil Action No.88-3194**  
**Response to Item 22(2)**  
**History of Sewer System Repair and Rehabilitation**

Annual Quarter	Dates Work Performed	Description of Work	Infiltration Removed	Flow in gallons per day		
				Inflow Removed	Total I/I per quarter	Exfiltration Source
	not completed	Woodland Avenue 035-107 to 035-106 391' 8"	2,760			
	not completed	Woodland Avenue 035-109 to 035-107 264' 8"	69,120			
	not completed	East Ashland Street 040-019 to 040-028 130' 12"	5,762			
	not completed	East Ashland Street 040-018 to 040-019 330' 12"	72,000			
	not completed	East Ashland Street 040-018 to 040-017 203' 12"	11,520			
	not completed	East Ashland Street 040-017 to 040-016 252' 12"	10,080			
	not completed	East Ashland Street 040-016 to 040-015 24' 12"	8,640			
	not completed	East Ashland Street 040-015 to 040-003B 154' 12"	6,480			
				0 gpd		
1st Quarter 2004						
4th Quarter 2003	Sept 26 - Dec 31, 2003	Abington removal of 8 sump pumps		172,800		
				172,800 gpd		
3rd Quarter 2003						
	July 2003	002-079 MH rehab	2,880			
	July 2003	002-081 MH rehab	2,880			
	July 2003	002-098 MH rehab	4,320			
	July 2003	002-201 MH rehab	2,880			
	July 2003	002-200A MH rehab	2,880			
	August 2003	004-006 MH rehab	5,760			
	July 2003	009-017A MH rehab	7,200			
	July 2003	011-001 MH rehab	5,760			
	July 2003	011-002 MH rehab	4,320			
	July 2003	011-018 MH rehab	2,880			
	August 2003	012-067 MH rehab	2,160			
	July 2003	012-076 MH rehab	2,880			
	July 2003	017-125 MH rehab	4,320			
	August 2003	017-054 MH rehab	7,200			
	July 2003	021-001 MH rehab	28,800			
	August 2003	025-041A MH rehab	4,320			
	July 2003	027-068 MH rehab	2,160			
	July 2003	031-016 MH rehab	2,880			
	July 2003	031-089 MH rehab	7,200			
	July 2003	031-050A MH rehab	7,200			
	July 2003	032-019 MH rehab	4,320			
	August 2003	033-021 MH rehab	2,880			
	August 2003	041-079 MH rehab	7,200			
	July 2003	045-033 MH rehab	7,200			
	August 2003	045-065 MH rehab	7,200			
	July 2003	046-113A MH rehab	2,160			
	July 2003	047-029 MH rehab	4,320			
	July 2003	048-057D MH rehab	3,600			
	July 2003	049-091 MH rehab	2,160			
	August 2003	052-010 MH rehab	3,600			

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	July 2003	061-011 MH rehab	5,040			
	July 2003	065-021 MH rehab	7,200			
	July 2003	065-028 MH rehab	31,680			
	August 2003	065-008A MH rehab	2,160			
	August 2003	117-088A MH rehab	4,320			
	August 2003	Pleasant Street 008-011 to 008-010 61' 8"	5,900			
	August 2003	Rockland Street 008-013 to 008-012 306' 8"	25,000			
	July 2003	Belair Street 004-040 to 004-023 116' 10"	3,600			
	July 2003	Belair Street 004-023 to 004-020, 248' 10"	15,120			
	July 2003	Belair Street 004-020 to 004-016, 298' 10"	16,560			
	July - Sept. 2003	Abington removal of 21 sump pumps		440,000	712,100 gpd	
2nd Quarter 2003	May 2003	Belair Street 004-045 to 004-044 361' 8"	0			
	May 2003	Belair Street 004-044 to 004-042 115' 8"	0			
	April 2003	Belair Street 004-042 to 004-041 243' 8"	1,275			
	April 2003	Belair Street 004-041 to 004-040 364' 8"	2,880			
	June 2003	North Cary Steet 040-031 to 040-029 164' 12"	11,520			
	June 2003	North Cary Steet 040-029 to 040-028 338' 12"	112,320			
	April 8, 2003	Belair Street 004-016 to 017-012A, 357' 10"	14,400		142,395 gpd	
1st Quarter 2003	March 20, 2003	Belair Street 017-012A to 017-011A 55' 10"	0			
	March 10, 2003	Westgate Drive 007-127F to 007-127Q 196' 12"	34,560			
	February 26, 2003	Easement off E. Westgate Dr. 007-127D to 007-127C 326' 12"	30,560			
	February 15, 2003	Easement off E. Westgate Dr. 007-127C to 007-127B 251' 12"	57,500			
	February 10, 2003	Easement off E. Westgate Dr. 007-127B to 007-127 335' 12"	410		123,030 gpd	
4th Quarter 2002	December-02	Belair Street 017-011A to 017-010B 174' 10"	26,640			
	December-02	Belair Street 017-010B to 017-011B 98' 10"	11,520			
	November-02	Belair Street 017-011B to 017-010A 111' 10"	0			
	November-02	Belair Street 017-010A to 017-009A, 280' 10"	2,160			
	November-02	Belair Street 017-009A to 017-001B 209' 10"	0			
	October 3, 2002	Disconnected private catch basins from city sewer at bank at 40 Legion Parkway see Photo 93A & 93B		107,000 gpd	147,320 gpd	
3rd Quarter 2002	August 20, 2002	Removed catch basin grate on sewer manhole at end of Thatcher Crt. (MH 058-022)	100,000 gpd			
	July 30, 2002	Ash St., replaced pipe and service from STA 1+22 to 1+56 (017-039 to 017-038) see Photo 92B	4,320 gpd			
	July 29, 2002	S. Fuller St., replaced pipe from STA 0+27 to 0+33 (018-016B to 018-016A) see Photo 90A & 90B	SPL			
	July 27, 2002	Dover St., replaced service wye at STA 2+24 (018-017 to 018-016A) see Photo 87A & 87B	360 gpd			
	July 25, 2002	Dover St., replaced service wye at STA 2+40 (018-017 to 018-016A) see Photo 88A	1,440 gpd			
	July 24, 2002	Forest Rd., replaced pipe from STA 0+17 to 0+23 (018-021A to 018-020A) see Photo 91A & 91B	SPL			
	July 23, 2002	Dover St., removed service wye at STA 2+18 (018-018B to 018-019C) see Photo 89A & 89B	SPL		106,120 gpd	
1st Quarter 2002	May 28, 2002	Spring St., replaced pipe from STA 1+73 to 1+75 (017-038 to 017-037) see Photo 78A & 78B	SPL			
	May 21, 2002	Spring St., replaced service wye at STA 1+82 (017-037 to 017-036) see Photo 76A & 76B	4,320 gpd			
	May 20, 2002	Poplar Rd., replaced service wye at STA 0+60 (017-054 to 017-053) see Photo 77A & 77B	2,880 gpd			
	May 17, 2002	Poplar Rd., replaced service wye at STA 0+84 (017-055 to 017-054) see Photo 75A & 75B	720 gpd			
	May 13, 2002	Poplar Rd., replaced service wye at STA 1+22 (017-055 to 017-054) see Photo 85A & 85B	1,440 gpd			
	May 9, 2002	Augusta Ave., replaced pipe from STA 1+08 to 1+12 (017-115 to 017-113) see Photo 84A & 84B	SPL			
	May 8, 2002	Prospect Ave., replaced pipe from STA 0+23 to 0+27 (017-114 to 017-113) see Photo 83A & 83B	4,320 gpd			
	May 8, 2002	Hancock Av., replaced pipe from STA 0+47 to 0+49 (009-086 to 009-085A) see Photo 74A & 74B	720 gpd			

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			Infiltration Removed	Inflow Removed	Total I/I per quarter	Exfiltration Source
2nd	May 7, 2002	Earle St., replaced pipe from STA 2+20 to 2+25 (017-013A to 017-011A) see Photo 82A & 82B	SPL			
	May 7, 2002	Earle St., replaced pipe from STA 0+50 to 0+52 (017-013A to 017-011A) see Photo 79A & 79B	SPL			
	May 6, 2002	Elm St., replace pipe from STA 0+02 to 0+06 (011-011A to 011-011) see Photo 86A & 86B	720 gpd			
	May 2, 2002	Sunset Dr., replaced pipe from STA 0+00 to 0+05 (011-016 to 011-015) see Photo 81A & 81B	2,880 gpd			
	May 1, 2002	Sunset Dr., replaced pipe from STA 2+72 to 2+77 (011-017 to 011-016) see Photo 80A & 80B	720 gpd		18,720 gpd	
1st Quarter 2002	March 28, 2002	Hancock Ave., removed service stub at STA 1+45 (009-087 to 009-086) see Photo 73A & 73B	200 gpd			
	March 21, 2002	Hancock Ave., replaced service wye at STA 1+06 (009-087 to 009-086) see Photo 72A & 72B	1,440 gpd			
	March 11, 2002	Sunset Dr., replaced pipe from STA 1+45 to 1+52 (009-028 to 009-027) see Photo 71A & 71B	2,880 gpd			
	March 6, 2002	Margery Rd., replaced pipe from STA 1+11 to 1+16 (009-024 to 009-025A) see Photo 65A & 65B	1,440 gpd			
	March 5, 2002	Candy Ln., replaced pipe from STA 1+64 to 1+68 (009-021 to 009-020) see Photo 62A & 62B	100 gpd			
	March 4, 2002	Candy Ln., replaced pipe from STA 0+26 to 0+51 (009-020 to 009-019) see Photo 67A & 67B	1,440 gpd			
	February 28, 2002	Candy Ln., removed stub at STA 1+96 (009-021 to 009-020) see Photo 61A & 61B	SPL			
	February 26, 2002	Candy Ln., replaced pipe from STA 1+58 to STA 1+64 (009-020 to 009-019) see Photo 63A & 63B	1,000 gpd			
	February 25, 2002	N. Pearl St., replaced pipe from STA 0+15 to STA 0+25 (009-78A to 009-79) see Photo 70A & 70B	600 gpd			
	February 21, 2002	Candy Ln., replaced pipe from STA 0+0 to STA 0+28 (009-021B to 009-021) see Photo 68A & 68B	200 gpd			
	February 20, 2002	Candy Ln., replaced pipe from STA 2+63 to STA 2+68 (009-021 to 009-020) see Photo 69A & 69B	360 gpd			
	February 20, 2002	Candy Ln., replaced pipe from STA 1+09 to STA 1+15 (009-021A to 009-021B) see Photo 64A & 64B	100 gpd			
	January 10, 2002	E. Westgate Dr., replaced pipe from STA 0+48 to STA 0+52 (007-127I to 007-127G) see Photo 66A & 66B	1,440 gpd		11,000 gpd	
4th Quarter 2001	November 24, 2001	203 Prospect St., replaced broken service pipe at STA 0+10 (006-094 to 006-096)	SPL			
	November 19, 2001	Candy Lane, replaced pipe from STA 0+10 to 0+14 (009-041 to 009-040)	1,440 gpd			
	November 15, 2001	Candy Ln., replaced pipe from STA 2+31 to 2+37 (009-043 to 009-043A) see Photo 59A & 59B	SPL			
	November 14, 2001	Margery Rd., replaced pipe from STA 2+40 to 2+47 (009-042 to 009-041) see Photo 60A & 60B	SPL			
	November 13, 2001	Santee Road, replace pipe from STA 2+12 to 2+14 (009-058 to 009-056) see Photo 58A & 58B	SPL			
	November 13, 2001	Santee Road, replace pipe from STA 0+77 to 0+80 (009-058 to 009-056) see Photo 57A & 57B	SPL			
	November 13, 2001	Santee Road, replace pipe from STA 0+50 to 0+53 (009-058 to 009-056) see Photo 56A & 56B	SPL			
	October 17, 2001	191 Grove St., replaced broken pipe from approx. STA 0+40 to 0+46 (056+011 to 056+010)	SPL			
October 9, 2001	West Street, replaced service wye at STA 0+30 (014-080 to 014-079) see Photo 55A	SPL		1,440 gpd		
3rd Quarter 2001	September 9, 2001	Fitzpatrick Cir, replaced pipe from STA 0+16 to 0+18 (005-104A to 005-104) see Photo 54B	SPL			
	August 20, 2001	Fitzpatrick Cir, replaced service wye at STA 1+32 (005-100 to 005-102) see Photo 52A & 52B	720			
	August 16, 2001	Fitzpatrick Cir, replaced service wye at STA 0+15 (005-098 to 005-099A) see Photo 48A & 48B	720			
	August 14, 2001	Fitzpatrick Cir, replaced service wye at STA 0+43 (005-104 to 005-102A) see Photo 53A & 53B	1,440			
	August 13, 2001	Fitzpatrick Cir, replaced wye & main from STA 1+12 to 1+20 (005-104A to 005-104) see Photo 49A & 49B	8,640			
	August 7, 2001	Sophia Ave., replaced pipe from STA 2+68 to 2+70 (005-104 to 005-136) see Photo 50A & 50B	SPL			
	August 3, 2001	Fitzpatrick Cir, replaced pipe from STA 2+38 to 2+46 (005-100 to 005-102) see Photo 51A & 51B	SPL		11,520 gpd	
2nd Quarter 2001	June 12, 2001	Oak Ridge Dr., replaced pipe from STA 1+40 to 1+55 (004-084 to 004-080) see Photo 47A & 47B	4,680 gpd			
	May 22, 2001	Crickett Rd., replaced pipe from STA 0+49 to 0+53 (004-057A to 004-053) see Photo 44A & 44B	7,200 gpd			
	May 21, 2001	Crickett Rd., replaced pipe from STA 1+82 to 1+86 (004-057A to 004-053) see Photo 45A & 45B	SPL			
	May 15, 2001	Shaws Parking Lot, removed entire 24" pipe (028-038 to 028-039)	SPL			
	May 15, 2001	Shaws Parking Lot, replaced entire 8" pipe (028-039 to 038-039A)	SPL			
	May 10, 2001	VFW off N. Quincy, repaired service pipe and wye see Photo 46A & 46B	100,000 gpd			
	May 5, 2001	57 Wilder St., house service connected directly to drain pipe was removed see Photo 43	-			X
	April 25, 2001	Berglund Ave., replaced pipe from STA 2+10 to 2+13 (004-021 to 004-020) see Photo 37A & 37B	SPL			
	April 24, 2001	Berglund Ave., replaced pipe from STA 1+84 to 1+92 (004-021 to 004-020) see Photo 34A & 34B	SPL			
	April 23, 2001	Berglund Ave., replaced service wye at STA 2+35 (004-021 to 004-020) see Photo 36A & 36B	dripping			
	April 20, 2001	Benham St., replaced pipe from STA ( ) see Photo 38A & 38B	???			

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			Infiltration Removed	Inflow Removed	Total I/I per quarter	Exfiltration Source
	April 19, 2001	Miller Ave., Replaced pipe from STA to ( ) see Photo 39A & 39B	???			
	April 12, 2001	Berglund Ave., replaced pipe from STA 1+71 to 1+74 (004-021 to 004-020) see Photo 35A & 35B	SPL			
	April 10, 2001	Thompson Ave., replaced pipe from STA 1+03 to 1+07 (004-017 to 004-016) see Photo 41A & 41B	SPL			
	April 9, 2001	Thompson Ave., replaced 6 " pipe from STA 0+38 to 0+44 (004-017 to 004-016) see Photo 42A & 42B	SPL			
	April 2, 2001	Reservoir Road, replaced service at wye at STA 0+74 (002-104 to 002-103) see Photo 40A & 40B	1,440 gpd		108,640 gpd	
1st Quarter 2001	March 27, 2001	Belmont and Ash St., replaced 8" pipe from STA 0+10 to 0+15 (018-072 to 018-073) see Photo 31A & 31B	SPL			
	March 19, 2001	Coventry Cir., replaced pipe from STA 0+91 to 0+97 (004-039A to 004-039) see Photo 34A & 34B	SPL			
	March 16, 2001	Coventry Cir., replaced pipe from STA 1+49 to 1+54 (004-039B to 004-039A) see Photo 32A & 32B	SPL			
	March 1, 2001	Coventry Cir., replaced pipe from STA 0+37 to 0+42 (004-039A to 004-039) see Photo 33A & 33B	14,400 gpd			
	February 27, 2001	Coventry Cir., replaced pipe from STA 0+70 to 0+76 (004-039B to 004-039A) see Photo 30A & 30B	SPL			
	February 26, 2001	Coventry Cir., replaced service connection at STA 0+12 (004-039B to 004-039A) see Photo 26A & 26B	5,760 gpd			
	February 20, 2001	Colonel Bell Dr., replaced pipe from STA 2+41 to 2+44 (004-007 to 004-006) see Photo 29A & 29B	2,880 gpd			
	February 12, 2001	Coventry Cir., replaced service connection at STA 1+44 (004-039A to 004-039) see Photo 27A & 27B	4,320 gpd			
	February 9, 2001	Coventry Cir., replaced pipe from STA 1+79 to 1+82 (004-039A to 004-039) see Photo 28A & 28B	4,320 gpd			
	January 30, 2001	Colonel Bell Dr., replaced service connection at STA 1+16 (004-036 to 004-024) see Photo 22A & 22B	4,320 gpd			
	January 29, 2001	Colonel Bell Dr., removed service wye at STA 1+04 (004-025 to 004-026) see Photo 21A & 21B	SPL			
	January 31, 2001	Colonel Bell Dr., removed service wye at STA 0+33 (004-008 to 004-007) see Photo 23A & 23B	SPL			
	January 23, 2001	Colonel Bell Dr., replaced pipe from STA 1+34 to 1+37 (004-025 to 004-026) see Photo 25A & 25B	SPL			
January 9, 2001	Colonel Bell Dr., replaced pipe from STA 0+62 to 0+64 (004-004 to 004-003) see Photo 24A & 24B	2,160 gpd		38,160 gpd		
4th Quarter 2000	Nov. 30, 2000	West Haven Dr., replaced service connection at STA 0+44 (001-029 to 001-028) see Photo 12A & 12B	720 gpd			
	Nov. 28, 2000	West Haven Dr., replaced 7' of 8 "pipe, STA 1+85 to 1+92 (001-029 to 001-028) see Photo 20A & 20B	47 gpd *			
	Nov. 16, 2000	Elliot St., replaced 8' of broken pipe at house #184 (042-121 to 042-122) see Photo 15A & 15B	2,880 gpd			
	Nov. 14, 2000	Darren Dr., replaced pipe at leaking joint at STA 0+52 (001-028 to 001-026) see Photo 19A & 19B	SPL			
	October 26, 2000	Darren Dr., replaced pipe at leaking joint at STA 0+89 (001-028 to 001-026) see Photo 17A & 17B	SPL			
	October 23, 2000	Darren Dr., replaced 3 ' of cracked pipe STA 1+65 (001-028 to 001-026) see Photo 18A & 18B	SPL			
	October 17, 2000	Darren Dr., replaced 2' of broken pipe at STA 0+08 (001-028 to 001-026) see Photo 16A & 16B	SPL			
	October 5, 2000	Perkins Ave., replaced wye at STA 2+96 (063-009B to 063-005) see Photo 13A & 13B	SPL			
	October 3, 2000	Perkins Ave., plugged service wye at STA 3+30 ( 063-009B to 063-005) see Photo 14A & 14B	SPL			
	Sept. 15, 2000	Fitzpatrick Circle replaced 7' of 8" VCP	SPL		3,647 gpd	
3rd Quarter 2000	August 21, 2000	Vine St., replaced broken pipe and service STA 0+99 to 1+01 (037-093 TO 037-092) see Photo 8A & 8B	SPL			
	August 17, 2000	12 Orchard Ave., removed service connection at STA 0+79 (037-128 to 037-127) see Photo 9A & 9B	180 gpd			
	August 18, 2000	14 Orchard Ave., replaced service connection at STA 2+28 (037-128 to 037-127) see Photo 10A & 10B	SPL			
	July 29, 2000	Van Cliff Ave., replaced service at STA 0+31 (032-059 to 032-052)	SPL			
	July 27, 2000	Paulin Ave., replaced service at STA 0+93 (065-070 to 065-069) see Photo 11A & 11B	720 gpd			
	July 26, 2000	Burril St., replaced service & broken pipe from STA 2+18 to STA 2+19 (048-051 to 048-050)	2,160 gpd			
	July 19, 2000	Roan Crt., replaced service connections at STA 0+27 & 0+29 (019-041 to 019-040) see Photo 1a & 1b	SPL			
	July 19, 2000	Roan Crt., replaced service connection at STA 0+61 (019-041 to 019-040) see Photo 2a & 2b	SPL			
	July 18, 2000	Albany St., replaced leaking joints at STA 2+85 (001-019 to 001-018) see Photo 3a & 3b	2,880 gpd			
	July 13, 2000	Stubb Rd., replaced service connection at STA 0+39 (009-026 to 009-024) see Photo 5a & 5b	360 gpd			
	July 13, 2000	Stubb Rd., replaced service connection at STA 1+03 (009-026 to 009-024) see Photo 6a & 6b	360 gpd			
July 12, 2000	Stubb Rd., replaced broken pipe from STA 0+18 to 0+20 (009-026 to 009-024) see Photo 7a & 7b	2,880 gpd				
July 11, 2000	Windsor Cir., Replaced a service tap at STA 0+05 (031-092 to 031-091) see Photo 4A & 4B	28,800 gpd		38,340 gpd		
2nd Quarter 2000	May 2000	Winnifred Road, service replacement at STA 1+32 (015-025 to 015-024)	360 gpd			
	May 2000	Fitzpatrick Avenue, replaced 300' of 8-in VC pipe that was defective (005-145A to MH 005-143)	2,010 gpd *			
	April 13, 2000	Main Interceptor infiltration leak at Meadow Lane bridge crossing	45,000 gpd			

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			Infiltration Removed	Inflow Removed	Total I/I per quarter	Exfiltration Source
	?	Embassy Nursing Home had direct sewer connection to surface water			47,370 gpd	X
1st Quarter 2000					0 gpd	
4th Quarter 1999	December 1999 ?	Howard Street Sewer Replacement, 4,460 ft Snell Place Sewer Replacement of 15 ft	29,882 gpd * 101 gpd *		29,983 gpd	
3rd Quarter 1999	July 1999 July 1999	Country Club Lane Sewer Replacement of 400 ft Country Club Place Sewer Replacement of 400 ft	2,680 gpd * 2,680 gpd *		5,360 gpd	
2nd Quarter 1999	April 5, 1999	Bellaire St. MH 004-016 to 004-015 replaced 10' of 10" pipe between STA 1+83 & 1+89	67 gpd *		67 gpd	
1st Quarter 1999	March 29, 1999 March 22, 1999	Bellaire St. MH 004-016 to 004-015 replaced 6' of 10" pipe & 1 service between STA 1+37 & 1+41 Bellaire St. MH 017-010B to 017-010A replace 6' of 10" pipe starting @ STA 0+28	40 gpd * 40 gpd *		80 gpd	
4th Quarter 1998	September 1998 September 1998 September 1998 September 1998	Warren & Keith, 60 ft west (Holmgren project) Warren & W. Chestnut, 74 ft west (Holmgren project) Warren & Calmar, 74 ft east (Holmgren project) Warren & Market to Copeland, 1,135 ft (Holmgren project)	402 gpd * 496 gpd * 496 gpd * 7,605 gpd *		8,999 gpd	
1st, 2nd, 3rd Quarter 1998	1998 January 1998	Ellsworth (cured in place lining) 522 linear feet (017-125 to 017-118) Disconnected CB connection to sewer at Stonehill College (at Duffy Academic Center)	3,497 gpd * 41,200 gpd *		44,697 gpd	
4th Quarter 1997	December 1997	Warren & Clifton, north to Nilsson, 3,000 ft	20,100 gpd *		20,100 gpd	
3rd Quarter 1997	August 1, 1997 ? ? August 1, 1997	137 Perkins Ave, broken sewer leaking into a broken drain below Sewer overflow disconnected at siphon on Bartlett St. Sewer overflow disconnected on the East Side Interceptor Matfield Woods Estates, possible infiltration from a force main crossing of a brook			0 gpd	X X X X
1st & 2nd Quarter 1997	April 1997 March 1997 January 27, 1997	Sawtell Ave. Sewer Replacement of 300 ft with 8" PVC (between Glendale St. and Alden St.) Wilmington St. Sewer Replacement of 100 ft with 15" PVC 150 Lisa Drive Replaced 8 ft of sewer with 8" PVC Market Street Sewer Replacement	2,010 gpd * 670 gpd * 54 gpd *		2,734 gpd	
4th Quarter 1996	October 1996 October 1996	Oak Green Apartments off Reservoir Street, disconnected a sewer MH from draining a surface water Biscayne Street Disconnected this abandoned private street from the city sewer because of several defects and constant I/I.	900,000 gpd  570,000 gpd		1,470,000 gpd	

**Table 1**  
**City of Brockton, Massachusetts**  
**Consent Decree, Civil Action No.88-3194**  
**Response to Item 22(2)**  
**History of Sewer System Repair and Rehabilitation**

Annual Quarter	Dates Work Performed	Description of Work	Flow in gallons per day			
			Infiltration Removed	Inflow Removed	Total I/I per quarter	Exfiltration Source
3rd Quarter 1996	August 1996	Howard Street Bridge Reconstruction, replaced 150 ft under bridge with 12" DI	1,005 gpd *			
	August 1996	Terminal Place on Evans St., replaced 300 ft of sewer with 8"PVC	2,010 gpd *			
			3,015 gpd			
2nd Quarter 1996	May 1996	- Replaced 50 ft from Warren Ave. going west with 8" PVC	335 gpd *			
	May 1996	- Replaced 250 ft from intersection of Copeland with 12" DI	1,675 gpd *			
	May 1996	- Replaced 240 ft from Warren Ave. going east with 24" PVC	1,608 gpd *			
			3,618 gpd			
1st Quarter 1996	March 22, 1996	Augusta Ave. replaced 6 ft with 8" PVC	40 gpd *			
	February 29, 1996	Ash St. and Pleasant St. replaced 25 ft with 8" PVC	168 gpd *			
			208 gpd			
4th Quarter 1995	Dec. 27, 1995	68 Belair St. replaced 18 ft with 10" PVC	121 gpd *			
			121 gpd			
	Jan.-May 1995	Howard Street Interceptor Project				
		- Replaced 838 ft on Intervale St. with 21" PVC	5,615 gpd *			
		- Replaced 244 ft on Dyer St. with 21" PVC	1,635 gpd *			
		- Replaced 1,511 ft on Winter St., Douglas St., and Oscar Ave. with 18" PVC	10,124 gpd *			
	May 6, 1995	Rainville St. replaced 6 ft with 15" PVC	40 gpd *			
	April 1995	Sump pump removed at 55 Albert St.	8,640 gpd **			
	April 1995	Sump pump removed at 115/117 Ames St.	8,640 gpd **			
	April 1995	Sump pump removed at 234 Ames St.	8,640 gpd **			
	April 1995	Sump pump removed at 266 Ames St.	8,640 gpd **			
	April 1995	Sump pump removed at 60 Arthur St.	8,640 gpd **			
	April 1995	Sump pump removed at 122 Arthur St.	8,640 gpd **			
	April 1995	Sump pump removed at 21 Baltic Ave.	8,640 gpd **			
	April 1995	Sump pump removed at 70 Baltic Ave.	8,640 gpd **			
	April 1995	Sump pump removed at 185 Baltic Ave.	8,640 gpd **			
	April 1995	Sump pump removed at 155 Alden St.	8,640 gpd **			
	April 1995	Sump pump removed at 116 Ames St.	8,640 gpd **			
	April 1995	Sump pump removed at 260 Ames St.	8,640 gpd **			
	April 1995	Sump pump removed at 292 Ames St.	8,640 gpd **			
	April 1995	Sump pump removed at 105 Arthur St.	8,640 gpd **			
	April 1995	Sump pump removed at 136 Arthur St.	8,640 gpd **			
	April 1995	Sump pump removed at 40 Baltic Ave.	8,640 gpd **			
	April 1995	Sump pump removed at 77 Baltic Ave.	8,640 gpd **			
	April 1995	Sump pump removed at 38 Banks St.	8,640 gpd **			
	April 1995	Sump pump removed at 65 Lawton Ave.	8,640 gpd **			
	April 1995	Sump pump removed at 35 Louis St.	8,640 gpd **			
	April 1995	Sump pump removed at 22 Merton St.	8,640 gpd **			
	April 1995	Sump pump removed at 58 Merton St.	8,640 gpd **			
	April 1995	Sump pump removed at 96 Merton St.	8,640 gpd **			
	April 1995	Sump pump removed at 116 North Ave.	8,640 gpd **			
	April 1995	Sump pump removed at 154 North Ave.	8,640 gpd **			
	April 1995	Sump pump removed at 37 Saint Casimir St.	8,640 gpd **			

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			Infiltration Removed	Inflow Removed	Total I/I per quarter	Exfiltration Source
	April 1995	Sump pump removed at 30 Louis St.	8,640 gpd	**		
	April 1995	Sump pump removed at 29 Merton St.	8,640 gpd	**		
	April 1995	Sump pump removed at 68 Merton St.	8,640 gpd	**		
	April 1995	Sump pump removed at 112 North Ave.	8,640 gpd	**		
	April 1995	Sump pump removed at 122 North Ave.	8,640 gpd	**		
	April 1995	Sump pump removed at 165 Ridge St.	8,640 gpd	**		
	April 1995	Sump pump removed at 24 Vermont Ave.	8,640 gpd	**		
	April 1995	Sump pump removed at 64 Banks St.	8,640 gpd	**		
	April 1995	Sump pump removed at 11 Bellevue Ave.	8,640 gpd	**		
	April 1995	Sump pump removed at 124 Bellevue Ave.	8,640 gpd	**		
	April 1995	Sump pump removed at 43 Claremont St.	8,640 gpd	**		
	April 1995	Sump pump removed at 107 Hovendon Ave.	8,640 gpd	**		
	April 1995	Sump pump removed at 115 Hovendon Ave.	8,640 gpd	**		
	April 1995	Sump pump removed at 164 Hovendon Ave.	8,640 gpd	**		
	April 1995	Sump pump removed at 247 Howard St.	8,640 gpd	**		
	April 1995	Sump pump removed at 10 Intervale St.	8,640 gpd	**		
	April 1995	Sump pump removed at 19 Westford St.	8,640 gpd	**		
	April 1995	Sump pump removed at 91 Banks St.	8,640 gpd	**		
	April 1995	Sump pump removed at 117 Bellevue Ave.	8,640 gpd	**		
	April 1995	Sump pump removed at 59 Bonney St.	8,640 gpd	**		
	April 1995	Sump pump removed at 25 Granite St.	8,640 gpd	**		
	April 1995	Sump pump removed at 114 Hovendon Ave.	8,640 gpd	**		
	April 1995	Sump pump removed at 121 Hovendon Ave.	8,640 gpd	**		
	April 1995	Sump pump removed at 243 Howard St.	8,640 gpd	**		
	April 1995	Sump pump removed at 267 Howard St.	8,640 gpd	**		
	April 1995	Sump pump removed at 15 Intervale St.	8,640 gpd	**		
	April 11, 1995	240 Colonel Bell Drive replaced 6 ft with 8" PVC	40 gpd	*		
	January 1, 1995	Sheridan St. replaced 10 ft with 10" PVC	67 gpd	*		
	September 7, 1994	Braemoor Rd. replaced 8 ft with 8" PVC	54 gpd	*		
	August 24, 1994	39 Southworth St. replaced 10 ft with 8" PVC	67 gpd	*		
	August 1994	Fisk St. Sewer Replacement of 50 ft with 8" PVC	335 gpd	*		
	June 6, 1994	Market St. replaced 200 ft with 10" PVC	1,340 gpd	*		
	June 1994	I/I Rehabilitation Conducted by Atlantic Development Corporation				
		- Disconnected driveway drain from sewer at 28 Amark St.	4,320 gpd	***		
		- Disconnected driveway drain from sewer at 306 Field St.	4,320 gpd	***		
	Dec. 15, 1993	16 Hill St. replaced 8 ft with 8 PVC	54 gpd	*		
	April 13, 1990	249 Boylston St. replaced 8 ft with 8" PVC	0 gpd	*		
	May 1, 1990	Pleasant St. at Belair St. replaced 18 ft with 10" PVC	121 gpd	*		

\* I/I estimate based on average I/I rate of 6.7 gpd/ft.

\*\* I/I estimate based on pump rate of 6 gpm.

\*\*\* I/I estimate based on pump rate of 3 gpm.

SPL: signs of previous leakage

Estimated Total I/I Removed: 2,761,976 gpd



One Cambridge Place, 50 Hampshire Street  
Cambridge, Massachusetts 02139  
tel: 617 452-6000  
fax: 617 452-8000

January 14, 2004

Assistant Attorney General I. Andrew Goldberg  
Environmental Protection Division  
200 Portland Street  
Boston, Massachusetts 02114

Subject: Brockton, Massachusetts  
Wastewater Collection/Treatment Facility  
Consent Decree Civil Action No.88-3194  
2003 - 4<sup>th</sup> Quarter Report

Dear Mr. Goldberg:

On behalf of the City of Brockton, we submit a quarterly report for your consideration regarding the City's Consent Decree Civil Action with the Commonwealth. This information is an update of the individual ongoing wastewater projects within the City.

1. Miscellaneous Sewer Pipe Repair and Replacement

The City has been performing minor sewer rehabilitation based upon the findings of the City Wide Sewer System Evaluation Survey (SSES). As a result of this work, several gallons of extraneous flow have been removed from the sewer system. The attached Table 1 is a summary of sewer system repairs documented by the Brockton Sewer Department.

2. Phase II Sewer System Rehabilitation

As part of FY03 budgeting, the City included another \$2,000,000 for the Phase II Sewer System Rehabilitation project. The design of this work is underway and public bidding is expected in the Spring of 2004. This project is expected to eliminate significant sources of I/I.

3. Phase III Sewer System Rehabilitation

As part of FY04 budgeting, the City included funds for the Phase III Sewer System Rehabilitation design. The funding for construction will be provided



Mr. Goldberg  
January 14, 2004  
Page 2

through the State Revolving Loan fund. Approximately \$2,000,000 is available for construction of this project. The design of this work is underway and public bidding is expected in the Spring of 2004. This project is expected to eliminate significant sources of I/I.

4. Inflow Removal Program

The City has been proceeding with an aggressive private and public inflow removal program. This work includes the removal of sump pumps, roof leaders and other sources of extraneous flow that were identified during previous studies. The Department of Public Works is assisting property owners and other municipal departments with the procedures and solutions for removal of these illegal connections. Table 2 summarizes the inflow removed as part of this program. Since the inception of this program, approximately 3.0mgd of inflow has been removed from the collection system.

5. Pursuit of SRF Funds

DEP has listed Brockton eligible for funding as part of the SRF program. The FY03 Intended Use Plan identifies that \$20 million of the total \$59.7 million has been committed for treatment and sewer system improvements in Brockton. The SRF application for this project was submitted on October 15, 2003 and the Project Approval Certificate was received in early January. The City has appropriated \$61 million for all wastewater system improvements and intends to apply for additional funding assistance.

7. I/I Reduction by Whitman and Abington

Brockton continuous to negotiate with the Towns of Abington and Whitman regarding the reduction of extraneous flows tributary from their sewer systems. A summary of work performed by Abington during the 4<sup>th</sup> quarter has been enclosed. The Town reports the removal of 8 sump pumps, which were contributing approximately 172,800 gpd of inflow.

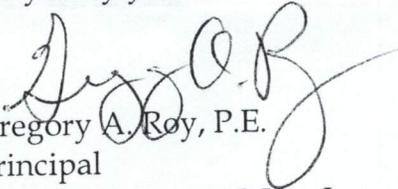
The Town of Whitman has plans to conduct I/I investigations to quantify and locate sources of extraneous flow. This work will begin during the Spring of 2004, when peak I/I exists. The Town will provide a report summarizing these efforts.



Mr. Goldberg  
January 14, 2004  
Page 3

We trust this information meets your expectations regarding the required progress report. Please feel free to contact me regarding any questions or comments on this information.

Very truly yours,

  
Gregory A. Roy, P.E.  
Principal  
Camp Dresser & McKee Inc.

cc: Thomas Plouffe, City Solicitor  
J. Condon, Chief Financial Officer  
Robert D. Smith, DPW Commissioner  
David Norton, Water and Wastewater Contract Supervisor  
Eric Hall, EPA  
David DiLorenzo, Joseph Shepherd, MADEP, SER  
Jack Hamm, MADEP, Boston  
Patrick D. Hughes, CDM

**Table 1**  
**City of Brockton, Massachusetts**  
**Consent Decree, Civil Action No.88-3194**  
**Response to Item 22(2)**  
**History of Sewer System Repair and Rehabilitation**

Annual Quarter	Dates Work Performed	Description of Work	Infiltration Removed	Flow in gallons per day		Exfiltration Source
				Inflow Removed	Total I/I per quarter	
	not completed	Woodland Avenue 035-107 to 035-106 391' 8"	2,760			
	not completed	Woodland Avenue 035-109 to 035-107 264' 8"	69,120			
	not completed	East Ashland Street 040-019 to 040-028 130' 12"	5,762			
	not completed	East Ashland Street 040-018 to 040-019 330' 12"	72,000			
	not completed	East Ashland Street 040-018 to 040-017 203' 12"	11,520			
	not completed	East Ashland Street 040-017 to 040-016 252' 12"	10,080			
	not completed	East Ashland Street 040-016 to 040-015 24' 12"	8,640			
	not completed	East Ashland Street 040-015 to 040-003B 154' 12"	6,480			
<b>4th Quarter 2003</b>	Sept 26 - Dec 31, 2003	Abington removal of 8 sump pumps	172,800			
				172,800 gpd	172,800 gpd	
<b>3rd Quarter 2003</b>	July 2003	002-079 MH rehab	2,880			
	July 2003	002-081 MH rehab	2,880			
	July 2003	002-098 MH rehab	4,320			
	July 2003	002-201 MH rehab	2,880			
	July 2003	002-200A MH rehab	2,880			
	August 2003	004-006 MH rehab	5,760			
	July 2003	009-017A MH rehab	7,200			
	July 2003	011-001 MH rehab	5,760			
	July 2003	011-002 MH rehab	4,320			
	July 2003	011-018 MH rehab	2,880			
	August 2003	012-067 MH rehab	2,160			
	July 2003	012-076 MH rehab	2,880			
	July 2003	017-125 MH rehab	4,320			
	August 2003	017-054 MH rehab	7,200			
	July 2003	021-001 MH rehab	28,800			
	August 2003	025-041A MH rehab	4,320			
	July 2003	027-068 MH rehab	2,160			
	July 2003	031-016 MH rehab	2,880			
	July 2003	031-089 MH rehab	7,200			
	July 2003	031-050A MH rehab	7,200			
	July 2003	032-019 MH rehab	4,320			
	August 2003	033-021 MH rehab	2,880			
	August 2003	041-079 MH rehab	7,200			
	July 2003	045-033 MH rehab	7,200			
	August 2003	045-065 MH rehab	7,200			
	July 2003	046-113A MH rehab	2,160			
	July 2003	047-029 MH rehab	4,320			
	July 2003	048-057D MH rehab	3,600			
	July 2003	049-091 MH rehab	2,160			
	August 2003	052-010 MH rehab	3,600			
	July 2003	061-011 MH rehab	5,040			
	July 2003	065-021 MH rehab	7,200			
	July 2003	065-028 MH rehab	31,680			
	August 2003	065-008A MH rehab	2,160			

**Table 1**  
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Annual Quarter	Dates Work Performed	Description of Work	Infiltration Removed	Flow in gallons per day		Exfiltration Source
				Inflow Removed	Total I/I per quarter	
	August 2003	117-088A MH rehab	4,320			
	August 2003	Pleasant Street 008-011 to 008-010 61' 8"	5,900			
	August 2003	Rockland Street 008-013 to 008-012 306' 8"	25,000			
	July 2003	Belair Street 004-040 to 004-023 116' 10"	3,600			
	July 2003	Belair Street 004-023 to 004-020, 248' 10"	15,120			
	July 2003	Belair Street 004-020 to 004-016, 298' 10"	16,560			
	July - Sept. 2003	Abington removal of 21 sump pumps		440,000	712,100 gpd	
2nd Quarter 2003	May 2003	Belair Street 004-045 to 004-044 361' 8"	0			
	May 2003	Belair Street 004-044 to 004-042 115' 8"	0			
	April 2003	Belair Street 004-042 to 004-041 243' 8"	1,275			
	April 2003	Belair Street 004-041 to 004-040 364' 8"	2,880			
	June 2003	North Cary Steet 040-031 to 040-029 164' 12"	11,520			
	June 2003	North Cary Steet 040-029 to 040-028 338' 12"	112,320			
	April 8, 2003	Belair Street 004-016 to 017-012A, 357' 10"	14,400		142,395 gpd	
1st Quarter 2003	March 20, 2003	Belair Street 017-012A to 017-011A 55' 10"	0			
	March 10, 2003	Westgate Drive 007-127F to 007-127Q 196' 12"	34,560			
	February 26, 2003	Easement off E. Westgate Dr. 007-127D to 007-127C 326' 12"	30,560			
	February 15, 2003	Easement off E. Westgate Dr. 007-127C to 007-127B 251' 12"	57,500			
	February 10, 2003	Easement off E. Westgate Dr. 007-127B to 007-127 335' 12"	410		123,030 gpd	
4th Quarter 2002	December-02	Belair Street 017-011A to 017-010B 174' 10"	26,640			
	December-02	Belair Street 017-010B to 017-011B 98' 10"	11,520			
	November-02	Belair Street 017-011B to 017-010A 111' 10"	0			
	November-02	Belair Street 017-010A to 017-009A, 280' 10"	2,160			
	November-02	Belair Street 017-009A to 017-001B 209' 10"	0			
	October 3, 2002	Disconnected private catch basins from city sewer at bank at 40 Legion Parkway see Photo 93A & 93B		107,000 gpd	147,320 gpd	
3rd Quarter 2002	August 20, 2002	Removed catch basin grate on sewer manhole at end of Thatcher Crt. (MH 058-022)	100,000 gpd			
	July 30, 2002	Ash St., replaced pipe and service from STA 1+22 to 1+56 (017-039 to 017-038) see Photo 92B	4,320 gpd			
	July 29, 2002	S. Fuller St., replaced pipe from STA 0+27 to 0+33 (018-016B to 018-016A) see Photo 90A & 90B	SPL			
	July 27, 2002	Dover St., replaced service wye at STA 2+24 (018-017 to 018-016A) see Photo 87A & 87B	360 gpd			
	July 25, 2002	Dover St., replaced service wye at STA 2+40 (018-017 to 018-016A) see Photo 88A	1,440 gpd			
	July 24, 2002	Forest Rd., replaced pipe from STA 0+17 to 0+23 (018-021A to 018-020A) see Photo 91A & 91B	SPL			
	July 23, 2002	Dover St., removed service wye at STA 2+18 (018-018B to 018-019C) see Photo 89A & 89B	SPL		106,120 gpd	
2nd Quarter 2002	May 28, 2002	Spring St., replaced pipe from STA 1+73 to 1+75 (017-038 to 017-037) see Photo 78A & 78B	SPL			
	May 21, 2002	Spring St., replaced service wye at STA 1+82 (017-037 to 017-036) see Photo 76A & 76B	4,320 gpd			
	May 20, 2002	Poplar Rd., replaced service wye at STA 0+60 (017-054 to 017-053) see Photo 77A & 77B	2,880 gpd			
	May 17, 2002	Poplar Rd., replaced service wye at STA 0+84 (017-055 to 017-054) see Photo 75A & 75B	720 gpd			
	May 13, 2002	Poplar Rd., replaced service wye at STA 1+22 (017-055 to 017-054) see Photo 85A & 85B	1,440 gpd			
	May 9, 2002	Augusta Ave., replaced pipe from STA 1+08 to 1+12 (017-115 to 017-113) see Photo 84A & 84B	SPL			
	May 8, 2002	Prospect Ave., replaced pipe from STA 0+23 to 0+27 (017-114 to 017-113) see Photo 83A & 83B	4,320 gpd			
	May 8, 2002	Hancock Av., replaced pipe from STA 0+47 to 0+49 (009-086 to 009-085A) see Photo 74A & 74B	720 gpd			
	May 7, 2002	Earle St., replaced pipe from STA 2+20 to 2+25 (017-013A to 017-011A) see Photo 82A & 82B	SPL			
	May 7, 2002	Earle St., replaced pipe from STA 0+50 to 0+52 (017-013A to 017-011A) see Photo 79A & 79B	SPL			
May 6, 2002	Elm St., replace pipe from STA 0+02 to 0+06 (011-011A to 011-011) see Photo 86A & 86B	720 gpd				

**Table 1**  
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				Inflow Removed	Total I/I per quarter	Exfiltration Source
1st Quarter 2002	May 2, 2002	Sunset Dr., replaced pipe from STA 0+00 to 0+05 (011-016 to 011-015) see Photo 81A & 81B	2,880 gpd			
	May 1, 2002	Sunset Dr., replaced pipe from STA 2+72 to 2+77 (011-017 to 011-016) see Photo 80A & 80B	720 gpd		18,720 gpd	
	March 28, 2002	Hancock Ave., removed service stub at STA 1+45 (009-087 to 009-086) see Photo 73A & 73B	200 gpd			
	March 21, 2002	Hancock Ave., replaced service wye at STA 1+06 (009-087 to 009-086) see Photo 72A & 72B	1,440 gpd			
	March 11, 2002	Sunset Dr., replaced pipe from STA 1+45 to 1+52 (009-028 to 009-027) see Photo 71A & 71B	2,880 gpd			
	March 6, 2002	Margery Rd., replaced pipe from STA 1+11 to 1+16 (009-024 to 009-025A) see Photo 65A & 65B	1,440 gpd			
	March 5, 2002	Candy Ln., replaced pipe from STA 1+64 to 1+68 (009-021 to 009-020) see Photo 62A & 62B	100 gpd			
	March 4, 2002	Candy Ln., replaced pipe from STA 0+26 to 0+51 (009-020 to 009-019) see Photo 67A & 67B	1,440 gpd			
	February 28, 2002	Candy Ln., removed stub at STA 1+96 (009-021 to 009-020) see Photo 61A & 61B	SPL			
	February 26, 2002	Candy Ln., replaced pipe from STA 1+58 to STA 1+64 (009-020 to 009-019) see Photo 63A & 63B	1,000 gpd			
	February 25, 2002	N. Pearl St., replaced pipe from STA 0+15 to STA 0+25 (009-78A to 009-79) see Photo 70A & 70B	600 gpd			
	February 21, 2002	Candy Ln., replaced pipe from STA 0+0 to STA 0+28 (009-021B to 009-021) see Photo 68A & 68B	200 gpd			
	February 20, 2002	Candy Ln., replaced pipe from STA 2+63 to STA 2+68 (009-021 to 009-020) see Photo 69A & 69B	360 gpd			
	February 20, 2002	Candy Ln., replaced pipe from STA 1+09 to STA 1+15 (009-021A to 009-021B) see Photo 64A & 64B	100 gpd			
January 10, 2002	E. Westgate Dr., replaced pipe from STA 0+48 to STA 0+52 (007-127I to 007-127G) see Photo 66A & 66B	1,440 gpd		11,000 gpd		
4th Quarter 2001	November 24, 2001	203 Prospect St., replaced broken service pipe at STA 0+10 (006-094 to 006-096)	SPL			
	November 19, 2001	Candy Lane, replaced pipe from STA 0+10 to 0+14 (009-041 to 009-040)	1,440 gpd			
	November 15, 2001	Candy Ln., replaced pipe from STA 2+31 to 2+37 (009-043 to 009-043A) see Photo 59A & 59B	SPL			
	November 14, 2001	Margery Rd., replaced pipe from STA 2+40 to 2+47 (009-042 to 009-041) see Photo 60A & 60B	SPL			
	November 13, 2001	Santee Road, replace pipe from STA 2+12 to 2+14 (009-058 to 009-056) see Photo 58A & 58B	SPL			
	November 13, 2001	Santee Road, replace pipe from STA 0+77 to 0+80 (009-058 to 009-056) see Photo 57A & 57B	SPL			
	November 13, 2001	Santee Road, replace pipe from STA 0+50 to 0+53 (009-058 to 009-056) see Photo 56A & 56B	SPL			
	October 17, 2001	191 Grove St., replaced broken pipe from approx. STA 0+40 to 0+46 (056+011 to 056+010)	SPL			
	October 9, 2001	West Street, replaced service wye at STA 0+30 (014-080 to 014-079) see Photo 55A	SPL		1,440 gpd	
	3rd Quarter 2001	September 9, 2001	Fitzpatrick Cir, replaced pipe from STA 0+16 to 0+18 (005-104A to 005-104) see Photo 54B	SPL		
August 20, 2001		Fitzpatrick Cir, replaced service wye at STA 1+32 (005-100 to 005-102) see Photo 52A & 52B	720			
August 16, 2001		Fitzpatrick Cir, replaced service wye at STA 0+15 (005-098 to 005-099A) see Photo 48A & 48B	720			
August 14, 2001		Fitzpatrick Cir, replaced service wye at STA 0+43 (005-104 to 005-102A) see Photo 53A & 53B	1,440			
August 13, 2001		Fitzpatrick Cir, replaced wye & main from STA 1+12 to 1+20 (005-104A to 005-104) see Photo 49A & 49B	8,640			
August 7, 2001		Sophia Ave., replaced pipe from STA 2+68 to 2+70 (005-104 to 005-136) see Photo 50A & 50B	SPL			
August 3, 2001		Fitzpatrick Cir, replaced pipe from STA 2+38 to 2+46 (005-100 to 005-102) see Photo 51A & 51B	SPL		11,520 gpd	
2nd Quarter 2001	June 12, 2001	Oak Ridge Dr., replaced pipe from STA 1+40 to 1+55 (004-084 to 004-080) see Photo 47A & 47B	4,680 gpd			
	May 22, 2001	Crickett Rd., replaced pipe from STA 0+49 to 0+53 (004-057A to 004-053) see Photo 44A & 44B	7,200 gpd			
	May 21, 2001	Crickett Rd., replaced pipe from STA 1+82 to 1+86 (004-057A to 004-053) see Photo 45A & 45B	SPL			
	May 15, 2001	Shaws Parking Lot, removed entire 24" pipe (028-038 to 028-039)	SPL			
	May 15, 2001	Shaws Parking Lot, replaced entire 8" pipe (028-039 to 038-039A)	SPL			
	May 10, 2001	VFW off N. Quincy, repaired service pipe and wye see Photo 46A & 46B	100,000 gpd			
	May 5, 2001	57 Wilder St., house service connected directly to drain pipe was removed see Photo 43	-			X
	April 25, 2001	Berglund Ave., replaced pipe from STA 2+10 to 2+13 (004-021 to 004-020) see Photo 37A & 37B	SPL			
	April 24, 2001	Berglund Ave., replaced pipe from STA 1+84 to 1+92 (004-021 to 004-020) see Photo 34A & 34B	SPL			
	April 23, 2001	Berglund Ave., replaced service wye at STA 2+35 (004-021 to 004-020) see Photo 36A & 36B	dripping			
	April 20, 2001	Benham St., replaced pipe from STA to ( ) see Photo 38A & 38B	???			
	April 19, 2001	Miller Ave., Replaced pipe from STA to ( ) see Photo 39A & 39B	???			
	April 12, 2001	Berglund Ave., replaced pipe from STA 1+71 to 1+74 (004-021 to 004-020) see Photo 35A & 35B	SPL			

**Table 1**  
**City of Brockton, Massachusetts**  
**Consent Decree, Civil Action No.88-3194**  
**Response to Item 22(2)**  
**History of Sewer System Repair and Rehabilitation**

Annual Quarter	Dates Work Performed	Description of Work	Infiltration Removed	Flow in gallons per day		Exfiltration Source
				Inflow Removed	Total I/I per quarter	
	April 10, 2001	Thompson Ave., replaced pipe from STA 1+03 to 1+07 (004-017 to 004-016) see Photo 41A & 41B	SPL			
	April 9, 2001	Thompson Ave., replaced 6 " pipe from STA 0+38 to 0+44 (004-017 to 004-016) see Photo 42A & 42B	SPL			
	April 2, 2001	Reservoir Road, replaced service at wye at STA 0+74 (002-104 to 002-103) see Photo 40A & 40B	1,440 gpd		108,640 gpd	
1st Quarter 2001	March 27, 2001	Belmont and Ash St., replaced 8" pipe from STA 0+10 to 0+15 (018-072 to 018-073) see Photo 31A & 31B	SPL			
	March 19, 2001	Coventry Cir., replaced pipe from STA 0+91 to 0+97 (004-039A to 004-039) see Photo 34A & 34B	SPL			
	March 16, 2001	Coventry Cir., replaced pipe from STA 1+49 to 1+54 (004-039B to 004-039A) see Photo 32A & 32B	SPL			
	March 1, 2001	Coventry Cir., replaced pipe from STA 0+37 to 0+42 (004-039A to 004-039) see Photo 33A & 33B	14,400 gpd			
	February 27, 2001	Coventry Cir., replaced pipe from STA 0+70 to 0+76 (004-039B to 004-039A) see Photo 30A & 30B	SPL			
	February 26, 2001	Coventry Cir., replaced service connection at STA 0+12 (004-039B to 004-039A) see Photo 26A & 26B	5,760 gpd			
	February 20, 2001	Colonel Bell Dr., replaced pipe from STA 2+41 to 2+44 (004-007 to 004-006) see Photo 29A & 29B	2,880 gpd			
	February 12, 2001	Coventry Cir., replaced service connection at STA 1+44 (004-039A to 004-039) see Photo 27A & 27B	4,320 gpd			
	February 9, 2001	Coventry Cir., replaced pipe from STA 1+79 to 1+82 (004-039A to 004-039) see Photo 28A & 28B	4,320 gpd			
	January 30, 2001	Colonel Bell Dr., replaced service connection at STA 1+16 (004-036 to 004-024) see Photo 22A & 22B	4,320 gpd			
	January 29, 2001	Colonel Bell Dr., removed service wye at STA 1+04 (004-025 to 004-026) see Photo 21A & 21B	SPL			
	January 31, 2001	Colonel Bell Dr., removed service wye at STA 0+33 (004-008 to 004-007) see Photo 23A & 23B	SPL			
	January 23, 2001	Colonel Bell Dr., replaced pipe from STA 1+34 to 1+37 (004-025 to 004-026) see Photo 25A & 25B	SPL			
January 9, 2001	Colonel Bell Dr., replaced pipe from STA 0+62 to 0+64 (004-004 to 004-003) see Photo 24A & 24B	2,160 gpd		38,160 gpd		
4th Quarter 2000	Nov. 30, 2000	West Haven Dr., replaced service connection at STA 0+44 (001-029 to 001-028) see Photo 12A & 12B	720 gpd			
	Nov. 28, 2000	West Haven Dr., replaced 7' of 8 "pipe, STA 1+85 to 1+92 (001-029 to 001-028) see Photo 20A & 20B	47 gpd *			
	Nov. 16, 2000	Elliot St., replaced 8' of broken pipe at house #184 (042-121 to 042-122) see Photo 15A & 15B	2,880 gpd			
	Nov. 14, 2000	Darren Dr., replaced pipe at leaking joint at STA 0+52 (001-028 to 001-026) see Photo 19A & 19B	SPL			
	October 26, 2000	Darren Dr., replaced pipe at leaking joint at STA 0+89 (001-028 to 001-026) see Photo 17A & 17B	SPL			
	October 23, 2000	Darren Dr., replaced 3 ' of cracked pipe STA 1+65 (001-028 to 001-026) see Photo 18A & 18B	SPL			
	October 17, 2000	Darren Dr., replaced 2' of broken pipe at STA 0+08 (001-028 to 001-026) see Photo 16A & 16B	SPL			
	October 5, 2000	Perkins Ave., replaced wye at STA 2+96 (063-009B to 063-005) see Photo 13A & 13B	SPL			
	October 3, 2000	Perkins Ave., plugged service wye at STA 3+30 ( 063-009B to 063-005) see Photo 14A & 14B	SPL			
Sept. 15, 2000	Fitzpatrick Circle replaced 7' of 8" VCP	SPL		3,647 gpd		
3rd Quarter 2000	August 21, 2000	Vine St., replaced broken pipe and service STA 0+99 to 1+01 (037-093 TO 037-092) see Photo 8A & 8B	SPL			
	August 17, 2000	12 Orchard Ave., removed service connection at STA 0+79 (037-128 to 037-127) see Photo 9A & 9B	180 gpd			
	August 18, 2000	14 Orchard Ave., replaced service connection at STA 2+28 (037-128 to 037-127) see Photo 10A & 10B	SPL			
	July 29, 2000	Van Cliff Ave., replaced service at STA 0+31 (032-059 to 032-052)	SPL			
	July 27, 2000	Paulin Ave., replaced service at STA 0+93 (065-070 to 065-069) see Photo 11A & 11B	720 gpd			
	July 26, 2000	Burril St., replaced service & broken pipe from STA 2+18 to STA 2+19 (048-051 to 048-050)	2,160 gpd			
	July 19, 2000	Roan Crt., replaced service connections at STA 0+27 & 0+29 (019-041 to 019-040) see Photo 1a & 1b	SPL			
	July 19, 2000	Roan Crt., replaced service connection at STA 0+61 (019-041 to 019-040) see Photo 2a & 2b	SPL			
	July 18, 2000	Albany St., replaced leaking joints at STA 2+85 (001-019 to 001-018) see Photo 3a & 3b	2,880 gpd			
	July 13, 2000	Stubb Rd., replaced service connection at STA 0+39 (009-026 to 009-024) see Photo 5a & 5b	360 gpd			
	July 13, 2000	Stubb Rd., replaced service connection at STA 1+03 (009-026 to 009-024) see Photo 6a & 6b	360 gpd			
July 12, 2000	Stubb Rd., replaced broken pipe from STA 0+18 to 0+20 (009-026 to 009-024) see Photo 7a & 7b	2,880 gpd				
July 11, 2000	Windsor Cir., Replaced a service tap at STA 0+05 (031-092 to 031-091) see Photo 4A & 4B	28,800 gpd		38,340 gpd		
2nd Quarter 2000	May 2000	Winnifred Road, service replacement at STA 1+32 (015-025 to 015-024)	360 gpd			
	May 2000	Fitzpatrick Avenue, replaced 300' of 8-in VC pipe that was defective (005-145A to MH 005-143)	2,010 gpd *			
	April 13, 2000	Main Interceptor infiltration leak at Meadow Lane bridge crossing	45,000 gpd			
	?	Embassy Nursing Home had direct sewer connection to surface water			47,370 gpd	X

**Table 1**  
**City of Brockton, Massachusetts**  
**Consent Decree, Civil Action No.88-3194**  
**Response to Item 22(2)**  
**History of Sewer System Repair and Rehabilitation**

Annual Quarter	Dates Work Performed	Description of Work	Flow in gallons per day			Exfiltration Source
			Infiltration Removed	Inflow Removed	Total I/I per quarter	
1st Quarter 2000					0 gpd	
4th Quarter 1999	December 1999 ?	Howard Street Sewer Replacement, 4,460 ft Snell Place Sewer Replacement of 15 ft	29,882 gpd *	101 gpd *		
					29,983 gpd	
3rd Quarter 1999	July 1999 July 1999	Country Club Lane Sewer Replacement of 400 ft Country Club Place Sewer Replacement of 400 ft	2,680 gpd *	2,680 gpd *		
					5,360 gpd	
2nd Quarter 1999	April 5, 1999	Bellaire St. MH 004-016 to 004-015 replaced 10' of 10" pipe between STA 1+83 & 1+89	67 gpd *			
					67 gpd	
1st Quarter 1999	March 29, 1999 March 22, 1999	Bellaire St. MH 004-016 to 004-015 replaced 6' of 10" pipe & 1 service between STA 1+37 & 1+41 Bellaire St. MH 017-010B to 017-010A replace 6' of 10" pipe starting @ STA 0+28	40 gpd *	40 gpd *		
					80 gpd	
4th Quarter 1998	September 1998 September 1998 September 1998 September 1998	Warren & Keith, 60 ft west (Holmgren project) Warren & W. Chestnut, 74 ft west (Holmgren project) Warren & Calmar, 74 ft east (Holmgren project) Warren & Market to Copeland, 1,135 ft (Holmgren project)	402 gpd *	496 gpd *		
			496 gpd *		8,999 gpd	
			7,605 gpd *			
1st, 2nd, 3rd Quarter 1998	1998 January 1998	Ellsworth (cured in place lining) 522 linear feet (017-125 to 017-118) Disconnected CB connection to sewer at Stonehill College (at Duffy Academic Center)	3,497 gpd *	41,200 gpd *		
					44,697 gpd	
4th Quarter 1997	December 1997	Warren & Clifton, north to Nilsson, 3,000 ft	20,100 gpd *			
					20,100 gpd	
3rd Quarter 1997	August 1, 1997 ? ?	137 Perkins Ave, broken sewer leaking into a broken drain below Sewer overflow disconnected at siphon on Bartlett St. Sewer overflow disconnected on the East Side Interceptor				X X X
	August 1, 1997	Matfield Woods Estates, possible infiltration from a force main crossing of a brook			0 gpd	X
1st & 2nd Quarter 1997	April 1997 March 1997 January 27, 1997	Sawtell Ave. Sewer Replacement of 300 ft with 8" PVC (between Glendale St. and Alden St.) Wilmington St. Sewer Replacement of 100 ft with 15" PVC 150 Lisa Drive Replaced 8 ft of sewer with 8" PVC Market Street Sewer Replacement	2,010 gpd *	670 gpd *		
			54 gpd *		2,734 gpd	
4th Quarter 1996	October 1996 October 1996	Oak Green Apartments off Reservoir Street, disconnected a sewer MH from draining a surface water Biscayne Street Disconnected this abandoned private street from the city sewer because of several defects and constant I/I.	900,000 gpd			
			570,000 gpd		1,470,000 gpd	

**Table 1**  
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Annual Quarter	Dates Work Performed	Description of Work	Flow in gallons per day			
			Infiltration Removed	Inflow Removed	Total I/I per quarter	Exfiltration Source
3rd Quarter 1996	August 1996	Howard Street Bridge Reconstruction, replaced 150 ft under bridge with 12" DI	1,005 gpd *			
	August 1996	Terminal Place on Evans St., replaced 300 ft of sewer with 8"PVC	2,010 gpd *			
					3,015 gpd	
2nd Quarter 1996	May 1996	- Replaced 50 ft from Warren Ave. going west with 8" PVC	335 gpd *			
	May 1996	- Replaced 250 ft from intersection of Copeland with 12" DI	1,675 gpd *			
	May 1996	- Replaced 240 ft from Warren Ave. going east with 24" PVC	1,608 gpd *			
					3,618 gpd	
1st Quarter 1996	March 22, 1996	Augusta Ave. replaced 6 ft with 8" PVC	40 gpd *			
	February 29, 1996	Ash St. and Pleasant St. replaced 25 ft with 8" PVC	168 gpd *			
					208 gpd	
4th Quarter 1995	Dec. 27, 1995	68 Belair St. replaced 18 ft with 10" PVC	121 gpd *			
					121 gpd	
	Jan.-May 1995	Howard Street Interceptor Project				
		- Replaced 838 ft on Intervale St. with 21" PVC	5,615 gpd *			
		- Replaced 244 ft on Dyer St. with 21" PVC	1,635 gpd *			
		- Replaced 1,511 ft on Winter St., Douglas St., and Oscar Ave. with 18" PVC	10,124 gpd *			
	May 6, 1995	Rainville St. replaced 6 ft with 15" PVC	40 gpd *			
	April 1995	Sump pump removed at 55 Albert St.	8,640 gpd **			
	April 1995	Sump pump removed at 115/117 Ames St.	8,640 gpd **			
	April 1995	Sump pump removed at 234 Ames St.	8,640 gpd **			
	April 1995	Sump pump removed at 266 Ames St.	8,640 gpd **			
	April 1995	Sump pump removed at 60 Arthur St.	8,640 gpd **			
	April 1995	Sump pump removed at 122 Arthur St.	8,640 gpd **			
	April 1995	Sump pump removed at 21 Baltic Ave.	8,640 gpd **			
	April 1995	Sump pump removed at 70 Baltic Ave.	8,640 gpd **			
	April 1995	Sump pump removed at 185 Baltic Ave.	8,640 gpd **			
	April 1995	Sump pump removed at 155 Alden St.	8,640 gpd **			
	April 1995	Sump pump removed at 116 Ames St.	8,640 gpd **			
	April 1995	Sump pump removed at 260 Ames St.	8,640 gpd **			
	April 1995	Sump pump removed at 292 Ames St.	8,640 gpd **			
	April 1995	Sump pump removed at 105 Arthur St.	8,640 gpd **			
	April 1995	Sump pump removed at 136 Arthur St.	8,640 gpd **			
	April 1995	Sump pump removed at 40 Baltic Ave.	8,640 gpd **			
	April 1995	Sump pump removed at 77 Baltic Ave.	8,640 gpd **			
	April 1995	Sump pump removed at 38 Banks St.	8,640 gpd **			
	April 1995	Sump pump removed at 65 Lawton Ave.	8,640 gpd **			
	April 1995	Sump pump removed at 35 Louis St.	8,640 gpd **			
	April 1995	Sump pump removed at 22 Merton St.	8,640 gpd **			
	April 1995	Sump pump removed at 58 Merton St.	8,640 gpd **			
	April 1995	Sump pump removed at 96 Merton St.	8,640 gpd **			
	April 1995	Sump pump removed at 116 North Ave.	8,640 gpd **			
	April 1995	Sump pump removed at 154 North Ave.	8,640 gpd **			

**Table 1**  
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**History of Sewer System Repair and Rehabilitation**

Annual Quarter	Dates Work Performed	Description of Work	Flow in gallons per day			
			Infiltration Removed	Inflow Removed	Total I/I per quarter	Exfiltration Source
	April 1995	Sump pump removed at 37 Saint Casimir St.	8,640 gpd	**		
	April 1995	Sump pump removed at 30 Louis St.	8,640 gpd	**		
	April 1995	Sump pump removed at 29 Merton St.	8,640 gpd	**		
	April 1995	Sump pump removed at 68 Merton St.	8,640 gpd	**		
	April 1995	Sump pump removed at 112 North Ave.	8,640 gpd	**		
	April 1995	Sump pump removed at 122 North Ave.	8,640 gpd	**		
	April 1995	Sump pump removed at 165 Ridge St.	8,640 gpd	**		
	April 1995	Sump pump removed at 24 Vermont Ave.	8,640 gpd	**		
	April 1995	Sump pump removed at 64 Banks St.	8,640 gpd	**		
	April 1995	Sump pump removed at 11 Bellevue Ave.	8,640 gpd	**		
	April 1995	Sump pump removed at 124 Bellevue Ave.	8,640 gpd	**		
	April 1995	Sump pump removed at 43 Claremont St.	8,640 gpd	**		
	April 1995	Sump pump removed at 107 Hovendon Ave.	8,640 gpd	**		
	April 1995	Sump pump removed at 115 Hovendon Ave.	8,640 gpd	**		
	April 1995	Sump pump removed at 164 Hovendon Ave.	8,640 gpd	**		
	April 1995	Sump pump removed at 247 Howard St.	8,640 gpd	**		
	April 1995	Sump pump removed at 10 Intervale St.	8,640 gpd	**		
	April 1995	Sump pump removed at 19 Westford St.	8,640 gpd	**		
	April 1995	Sump pump removed at 91 Banks St.	8,640 gpd	**		
	April 1995	Sump pump removed at 117 Bellevue Ave.	8,640 gpd	**		
	April 1995	Sump pump removed at 59 Bonney St.	8,640 gpd	**		
	April 1995	Sump pump removed at 25 Granite St.	8,640 gpd	**		
	April 1995	Sump pump removed at 114 Hovendon Ave.	8,640 gpd	**		
	April 1995	Sump pump removed at 121 Hovendon Ave.	8,640 gpd	**		
	April 1995	Sump pump removed at 243 Howard St.	8,640 gpd	**		
	April 1995	Sump pump removed at 267 Howard St.	8,640 gpd	**		
	April 1995	Sump pump removed at 15 Intervale St.	8,640 gpd	**		
	April 11, 1995	240 Colonel Bell Drive replaced 6 ft with 8" PVC	40 gpd	*		
	January 1, 1995	Sheridan St. replaced 10 ft with 10" PVC	67 gpd	*		
	September 7, 1994	Braemoor Rd. replaced 8 ft with 8" PVC	54 gpd	*		
	August 24, 1994	39 Southworth St. replaced 10 ft with 8" PVC	67 gpd	*		
	August 1994	Fisk St. Sewer Replacement of 50 ft with 8" PVC	335 gpd	*		
	June 6, 1994	Market St. replaced 200 ft with 10" PVC	1,340 gpd	*		
	June 1994	I/I Rehabilitation Conducted by Atlantic Development Corporation				
		- Disconnected driveway drain from sewer at 28 Amark St.	4,320 gpd	***		
		- Disconnected driveway drain from sewer at 306 Field St.	4,320 gpd	***		
	Dec. 15, 1993	16 Hill St. replaced 8 ft with 8 PVC	54 gpd	*		
	April 13, 1990	249 Boylston St. replaced 8 ft with 8" PVC	0 gpd	*		
	May 1, 1990	Pleasant St. at Belair St. replaced 18 ft with 10" PVC	121 gpd	*		

\* I/I estimate based on average I/I rate of 6.7 gpd/ft.

\*\* I/I estimate based on pump rate of 6 gpm.

\*\*\* I/I estimate based on pump rate of 3 gpm.

SPL: signs of previous leakage

Estimated Total I/I Removed: 2,761,976 gpd



# Town of Abington

OFFICE OF  
ABINGTON SEWER DEPARTMENT

350 SUMMER STREET

P.O. BOX 2198

ABINGTON, MA 02351

(781) 982-2122

FAX (781) 982-9425

January 2, 2004

To: Jim Howell, Supt.

From: Mike Donovan, Foreman

RE: I&I 2003 fourth quarter report

CC: Greg Roy, CDM

Dear Jim,

The following I&I work was performed between September 26 and December 31, 2003.

- We continued the door-to-door inspections on all properties tied-in to the municipal sewer system. We had a six (6) week period where we did not have an inspector for this program.
- Visited 589 properties with the following findings,
  - Performed 362 inspections, 360 are in compliance, 2 had violations, and 8 violations have come into compliance.
- All properties that were in violation or denied access were sent letters explaining their infraction and how to remedy it.
- 8 sump pumps were removed from the collection system.
- Various manhole covers, which were allowing surface run off to enter the system, were repaired with cold patch.

Future I&I work will include the following;

- Follow up on sump pump/excess wastewater remediation program.
- Removal of sump pumps.
- Replacing ductile iron castings with new cast iron castings.
- Continue monitoring the collection system.

Thank you,

Mike Donovan  
Foreman



One Cambridge Place, 50 Hampshire Street  
Cambridge, Massachusetts 02139  
tel: 617 452-6000  
fax: 617 452-8000

October 15, 2003

Assistant Attorney General I. Andrew Goldberg  
Environmental Protection Division  
200 Portland Street  
Boston, Massachusetts 02114

Subject: Brockton, Massachusetts  
Wastewater Collection/Treatment Facility  
Consent Decree Civil Action No.88-3194  
2003 - 3<sup>rd</sup> Quarter Report

Dear Mr. Goldberg:

On behalf of the City of Brockton, we submit a quarterly report for your consideration regarding the City's Consent Decree Civil Action with the Commonwealth. This information is an update of the individual ongoing wastewater projects within the City.

1. Miscellaneous Sewer Pipe Repair and Replacement

The City has been performing minor sewer rehabilitation based upon the findings of the City Wide Sewer System Evaluation Survey (SSES). As a result of this work, several gallons of extraneous flow have been removed from the sewer system. The attached Table 1 is a summary of sewer system repairs documented by the Brockton Sewer Department.

2. Phase I Sewer System Rehabilitation

This project was completed in August of 2003. This project has removed approximately 578,000 gpd of infiltration from the Brockton sewer system. The attached Table 1 summarizes the I/I reduction as a result of this project.

3. Phase II Sewer System Rehabilitation

As part of FY03 budgeting, the City included another \$2,000,000 for the Phase II Sewer System Rehabilitation project. The design of this work is underway



Mr. Goldberg  
October 15, 2003  
Page 2

and public bidding is expected in the Spring of 2004. This project is expected to eliminate significant sources of I/I.

4. Phase III Sewer System Rehabilitation

As part of FY04 budgeting, the City included funds for the Phase III Sewer System Rehabilitation design. The funding for construction will be provided through the State Revolving Loan fund. Approximately \$2,170,000 is available for construction of this project. The design of this work is underway and public bidding is expected in the Spring of 2004. This project is expected to eliminate significant sources of I/I.

5. Inflow Removal Program

The City has been proceeding with an aggressive private and public inflow removal program. This work includes the removal of sump pumps, roof leaders and other sources of extraneous flow that were identified during previous studies. The Department of Public Works is assisting property owners and other municipal departments with the procedures and solutions for removal of these illegal connections. Table 2 summarizes the inflow removed as part of this program. Since the inception of this program, approximately 3.0mgd of inflow has been removed from the collection system.

6. Pursuit of SRF Funds

DEP has listed Brockton eligible for funding as part of the SRF program. The FY03 Intended Use Plan identifies that \$20 million of the total \$59.7 million has been committed for treatment and sewer system improvements in Brockton. The SRF application for this project was submitted on October 15, 2003. The City has appropriated \$61 million for all wastewater system improvements and intends to apply for additional funding assistance.

7. I/I Reduction by Whitman and Abington

Brockton continues to negotiate with the Towns of Abington and Whitman regarding the reduction of extraneous flows tributary from their sewer systems. A summary of work performed by Abington during the 3rd quarter



Mr. Goldberg  
October 15, 2003  
Page 3

has been enclosed. The Town reports the removal of 21 sump pumps, which were contributing approximately 440,000 gpd of inflow.

The Town of Whitman has plans to conduct I/I investigations to quantify and locate sources of extraneous flow. This work will begin during the Spring of 2004, when peak I/I exists. The Town will provide a report summarizing these efforts.

We trust this information meets your expectations regarding the required progress report. Please feel free to contact me regarding any questions or comments on this information.

Very truly yours,

A handwritten signature in black ink, appearing to read 'Gregory A. Roy', with a long, sweeping underline that extends to the right.

Gregory A. Roy, P.E.  
Principal  
Camp Dresser & McKee Inc.

cc: Thomas Plouffe, City Solicitor  
J. Condon, Chief Financial Officer  
Robert D. Smith, DPW Commissioner  
Eric Hall, EPA  
David DiLorenzo, Joseph Shepherd, MADEP, SER  
Jack Hamm, MADEP, Boston  
David Norton, USF  
Patrick D. Hughes, CDM

**Table 1**  
**City of Brockton, Massachusetts**  
**Consent Decree, Civil Action No.88-3194**  
**Response to Item 22(2)**  
**History of Sewer System Repair and Rehabilitation**

Annual Quarter	Dates Work Performed	Description of Work	Infiltration Removed	Flow in gallons per day		
				Inflow Removed	Total I/I per quarter	Exfiltration Source
	not completed	Woodland Avenue 035-107 to 035-106 391' 8"	2,760			
	not completed	Woodland Avenue 035-109 to 035-107 264' 8"	69,120			
	not completed	East Ashland Street 040-019 to 040-028 130' 12"	5,762			
	not completed	East Ashland Street 040-018 to 040-019 330' 12"	72,000			
	not completed	East Ashland Street 040-018 to 040-017 203' 12"	11,520			
	not completed	East Ashland Street 040-017 to 040-016 252' 12"	10,080			
	not completed	East Ashland Street 040-016 to 040-015 24' 12"	8,640			
	not completed	East Ashland Street 040-015 to 040-003B 154' 12"	6,480			
3rd Quarter 2003	July 2003	002-079 MH rehab	2,880			
	July 2003	002-081 MH rehab	2,880			
	July 2003	002-098 MH rehab	4,320			
	July 2003	002-201 MH rehab	2,880			
	July 2003	002-200A MH rehab	2,880			
	August 2003	004-006 MH rehab	5,760			
	July 2003	009-017A MH rehab	7,200			
	July 2003	011-001 MH rehab	5,760			
	July 2003	011-002 MH rehab	4,320			
	July 2003	011-018 MH rehab	2,880			
	August 2003	012-067 MH rehab	2,160			
	July 2003	012-076 MH rehab	2,880			
	July 2003	017-125 MH rehab	4,320			
	August 2003	017-054 MH rehab	7,200			
	July 2003	021-001 MH rehab	28,800			
	August 2003	025-041A MH rehab	4,320			
	July 2003	027-068 MH rehab	2,160			
	July 2003	031-016 MH rehab	2,880			
	July 2003	031-089 MH rehab	7,200			
	July 2003	031-050A MH rehab	7,200			
	July 2003	032-019 MH rehab	4,320			
	August 2003	033-021 MH rehab	2,880			
	August 2003	041-079 MH rehab	7,200			
	July 2003	045-033 MH rehab	7,200			
	August 2003	045-065 MH rehab	7,200			
	July 2003	046-113A MH rehab	2,160			
	July 2003	047-029 MH rehab	4,320			
	July 2003	048-057D MH rehab	3,600			
	July 2003	049-091 MH rehab	2,160			
	August 2003	052-010 MH rehab	3,600			
	July 2003	061-011 MH rehab	5,040			
	July 2003	065-021 MH rehab	7,200			
	July 2003	065-028 MH rehab	31,680			
August 2003	065-008A MH rehab	2,160				
August 2003	117-088A MH rehab	4,320				
August 2003	Pleasant Street 008-011 to 008-010 61' 8"	5,900				
August 2003	Rockland Street 008-013 to 008-012 306' 8"	25,000				
July 2003	Belair Street 004-040 to 004-023 116' 10"	3,600				

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Annual Quarter	Dates Work Performed	Description of Work	Flow in gallons per day			
			Infiltration Removed	Inflow Removed	Total I/I per quarter	Exfiltration Source
	July 2003	Belair Street 004-023 to 004-020, 248' 10"	15,120			
	July 2003	Belair Street 004-020 to 004-016, 298' 10"	16,560			
	July - Sept. 2003	Abington removal of 21 sump pumps		440,000	712,100 gpd	
2nd Quarter 2003	May 2003	Belair Street 004-045 to 004-044 361' 8"	0			
	May 2003	Belair Street 004-044 to 004-042 115' 8"	0			
	April 2003	Belair Street 004-042 to 004-041 243' 8"	1,275			
	April 2003	Belair Street 004-041 to 004-040 364' 8"	2,880			
	June 2003	North Cary Steet 040-031 to 040-029 164' 12"	11,520			
	June 2003	North Cary Steet 040-029 to 040-028 338' 12"	112,320			
	April 8, 2003	Belair Street 004-016 to 017-012A, 357' 10"	14,400		142,395 gpd	
1st Quarter 2003	March 20, 2003	Belair Street 017-012A to 017-011A 55' 10"	0			
	March 10, 2003	Westgate Drive 007-127F to 007-127Q 196' 12"	34,560			
	February 26, 2003	Easement off E. Westgate Dr. 007-127D to 007-127C 326' 12"	30,560			
	February 15, 2003	Easement off E. Westgate Dr. 007-127C to 007-127B 251' 12"	57,500			
	February 10, 2003	Easement off E. Westgate Dr. 007-127B to 007-127 335' 12"	410		123,030 gpd	
4th Quarter 2002	December-02	Belair Street 017-011A to 017-010B 174' 10"	26,640			
	December-02	Belair Street 017-010B to 017-011B 98' 10"	11,520			
	November-02	Belair Street 017-011B to 017-010A 111' 10"	0			
	November-02	Belair Street 017-010A to 017-009A, 280' 10"	2,160			
	November-02	Belair Street 017-009A to 017-001B 209' 10"	0			
	October 3, 2002	Disconnected private catch basins from city sewer at bank at 40 Legion Parkway see Photo 93A & 93B		107,000 gpd	147,320 gpd	
3rd Quarter 2002	August 20, 2002	Removed catch basin grate on sewer manhole at end of Thatcher Crt. (MH 058-022)	100,000 gpd			
	July 30, 2002	Ash St., replaced pipe and service from STA 1+22 to 1+56 (017-039 to 017-038) see Photo 92B	4,320 gpd			
	July 29, 2002	S. Fuller St., replaced pipe from STA 0+27 to 0+33 (018-016B to 018-016A) see Photo 90A & 90B	SPL			
	July 27, 2002	Dover St., replaced service wye at STA 2+24 (018-017 to 018-016A) see Photo 87A & 87B	360 gpd			
	July 25, 2002	Dover St., replaced service wye at STA 2+40 (018-017 to 018-016A) see Photo 88A	1,440 gpd			
	July 24, 2002	Forest Rd., replaced pipe from STA 0+17 to 0+23 (018-021A to 018-020A) see Photo 91A & 91B	SPL			
	July 23, 2002	Dover St., removed service wye at STA 2+18 (018-018B to 018-019C) see Photo 89A & 89B	SPL		106,120 gpd	
	May 28, 2002	Spring St., replaced pipe from STA 1+73 to 1+75 (017-038 to 017-037) see Photo 78A & 78B	SPL			
2nd Quarter 2002	May 21, 2002	Spring St., replaced service wye at STA 1+82 (017-037 to 017-036) see Photo 76A & 76B	4,320 gpd			
	May 20, 2002	Poplar Rd., replaced service wye at STA 0+60 (017-054 to 017-053) see Photo 77A & 77B	2,880 gpd			
	May 17, 2002	Poplar Rd., replaced service wye at STA 0+84 (017-055 to 017-054) see Photo 75A & 75B	720 gpd			
	May 13, 2002	Poplar Rd., replaced service wye at STA 1+22 (017-055 to 017-054) see Photo 85A & 85B	1,440 gpd			
	May 9, 2002	Augusta Ave., replaced pipe from STA 1+08 to 1+12 (017-115 to 017-113) see Photo 84A & 84B	SPL			
	May 8, 2002	Prospect Ave., replaced pipe from STA 0+23 to 0+27 (017-114 to 017-113) see Photo 83A & 83B	4,320 gpd			
	May 8, 2002	Hancock Av.,replaced pipe from STA 0+47 to 0+49 (009-086 to 009-085A) see Photo 74A & 74B	720 gpd			
	May 7, 2002	Earle St., replaced pipe from STA 2+20 to 2+25 (017-013A to 017-011A) see Photo 82A & 82B	SPL			
	May 7, 2002	Earle St., replaced pipe from STA 0+50 to 0+52 (017-013A to 017-011A) see Photo 79A & 79B	SPL			
	May 6, 2002	Elm St., replace pipe from STA 0+02 to 0+06 (011-011A to 011-011) see Photo 86A & 86B	720 gpd			
	May 2, 2002	Sunset Dr., replaced pipe from STA 0+00 to 0+05 (011-016 to 011-015) see Photo 81A & 81B	2,880 gpd			
	May 1, 2002	Sunset Dr., replaced pipe from STA 2+72 to 2+77 (011-017 to 011-016) see Photo 80A & 80B	720 gpd		18,720 gpd	
March 28, 2002	Hancock Ave., removed service stub at STA 1+45 (009-087 to 009-086) see Photo 73A & 73B	200 gpd				
March 21, 2002	Hancock Ave., replaced service wye at STA 1+06 (009-087 to 009-086) see Photo 72A & 72B	1,440 gpd				

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				Inflow Removed	Total I/I per quarter	
1st Quarter 2002	March 11, 2002	Sunset Dr., replaced pipe from STA 1+45 to 1+52 (009-028 to 009-027) see Photo 71A & 71B	2,880 gpd			
	March 6, 2002	Margery Rd., replaced pipe from STA 1+11 to 1+16 (009-024 to 009-025A) see Photo 65A & 65B	1,440 gpd			
	March 5, 2002	Candy Ln., replaced pipe from STA 1+64 to 1+68 (009-021 to 009-020) see Photo 62A & 62B	100 gpd			
	March 4, 2002	Candy Ln., replaced pipe from STA 0+26 to 0+51 (009-020 to 009-019) see Photo 67A & 67B	1,440 gpd			
	February 28, 2002	Candy Ln., removed stub at STA 1+96 (009-021 to 009-020) see Photo 61A & 61B	SPL			
	February 26, 2002	Candy Ln., replaced pipe from STA 1+58 to STA 1+64 (009-020 to 009-019) see Photo 63A & 63B	1,000 gpd			
	February 25, 2002	N. Pearl St., replaced pipe from STA 0+15 to STA 0+25 (009-78A to 009-79) see Photo 70A & 70B	600 gpd			
	February 21, 2002	Candy Ln., replaced pipe from STA 0+0 to STA 0+28 (009-021B to 009-021) see Photo 68A & 68B	200 gpd			
	February 20, 2002	Candy Ln., replaced pipe from STA 2+63 to STA 2+68 (009-021 to 009-020) see Photo 69A & 69B	360 gpd			
	February 20, 2002	Candy Ln., replaced pipe from STA 1+09 to STA 1+15 (009-021A to 009-021B) see Photo 64A & 64B	100 gpd			
	January 10, 2002	E. Westgate Dr., replaced pipe from STA 0+48 to STA 0+52 (007-127I to 007-127G) see Photo 66A & 66B	1,440 gpd		11,000 gpd	
4th Quarter 2001	November 24, 2001	203 Prospect St., replaced broken service pipe at STA 0+10 (006-094 to 006-096)	SPL			
	November 19, 2001	Candy Lane, replaced pipe from STA 0+10 to 0+14 (009-041 to 009-040)	1,440 gpd			
	November 15, 2001	Candy Ln., replaced pipe from STA 2+31 to 2+37 (009-043 to 009-043A) see Photo 59A & 59B	SPL			
	November 14, 2001	Margery Rd., replaced pipe from STA 2+40 to 2+47 (009-042 to 009-041) see Photo 60A & 60B	SPL			
	November 13, 2001	Santee Road, replace pipe from STA 2+12 to 2+14 (009-058 to 009-056) see Photo 58A & 58B	SPL			
	November 13, 2001	Santee Road, replace pipe from STA 0+77 to 0+80 (009-058 to 009-056) see Photo 57A & 57B	SPL			
	November 13, 2001	Santee Road, replace pipe from STA 0+50 to 0+53 (009-058 to 009-056) see Photo 56A & 56B	SPL			
	October 17, 2001	191 Grove St., replaced broken pipe from approx. STA 0+40 to 0+46 (056+011 to 056+010)	SPL			
	October 9, 2001	West Street, replaced service wye at STA 0+30 (014-080 to 014-079) see Photo 55A	SPL		1,440 gpd	
	3rd Quarter 2001	September 9, 2001	Fitzpatrick Cir, replaced pipe from STA 0+16 to 0+18 (005-104A to 005-104) see Photo 54B	SPL		
August 20, 2001		Fitzpatrick Cir, replaced service wye at STA 1+32 (005-100 to 005-102) see Photo 52A & 52B	720			
August 16, 2001		Fitzpatrick Cir, replaced service wye at STA 0+15 (005-098 to 005-099A) see Photo 48A & 48B	720			
August 14, 2001		Fitzpatrick Cir, replaced service wye at STA 0+43 (005-104 to 005-102A) see Photo 53A & 53B	1,440			
August 13, 2001		Fitzpatrick Cir, replaced wye & main from STA 1+12 to 1+20 (005-104A to 005-104) see Photo 49A & 49B	8,640			
August 7, 2001		Sophia Ave., replaced pipe from STA 2+68 to 2+70 (005-104 to 005-136) see Photo 50A & 50B	SPL			
August 3, 2001		Fitzpatrick Cir, replaced pipe from STA 2+38 to 2+46 (005-100 to 005-102) see Photo 51A & 51B	SPL		11,520 gpd	
2nd Quarter 2001	June 12, 2001	Oak Ridge Dr., replaced pipe from STA 1+40 to 1+55 (004-084 to 004-080) see Photo 47A & 47B	4,680 gpd			
	May 22, 2001	Crickett Rd., replaced pipe from STA 0+49 to 0+53 (004-057A to 004-053) see Photo 44A & 44B	7,200 gpd			
	May 21, 2001	Crickett Rd., replaced pipe from STA 1+82 to 1+86 (004-057A to 004-053) see Photo 45A & 45B	SPL			
	May 15, 2001	Shaws Parking Lot, removed entire 24" pipe (028-038 to 028-039)	SPL			
	May 15, 2001	Shaws Parking Lot, replaced entire 8" pipe (028-039 to 038-039A)	SPL			
	May 10, 2001	VFW off N. Quincy, repaired service pipe and wye see Photo 46A & 46B	100,000 gpd			
	May 5, 2001	57 Wilder St., house service connected directly to drain pipe was removed see Photo 43	-			X
	April 25, 2001	Berglund Ave., replaced pipe from STA 2+10 to 2+13 (004-021 to 004-020) see Photo 37A & 37B	SPL			
	April 24, 2001	Berglund Ave., replaced pipe from STA 1+84 to 1+92 (004-021 to 004-020) see Photo 34A & 34B	SPL			
	April 23, 2001	Berglund Ave., replaced service wye at STA 2+35 (004-021 to 004-020) see Photo 36A & 36B	dripping			
	April 20, 2001	Benham St., replaced pipe from STA to ( ) see Photo 38A & 38B	???			
	April 19, 2001	Miller Ave., Replaced pipe from STA to ( ) see Photo 39A & 39B	???			
	April 12, 2001	Berglund Ave., replaced pipe from STA 1+71 to 1+74 (004-021 to 004-020) see Photo 35A & 35B	SPL			
	April 10, 2001	Thompson Ave., replaced pipe from STA 1+03 to 1+07 (004-017 to 004-016) see Photo 41A & 41B	SPL			
	April 9, 2001	Thompson Ave., replaced 6 " pipe from STA 0+38 to 0+44 (004-017 to 004-016) see Photo 42A & 42B	SPL			
	April 2, 2001	Reservoir Road, replaced service at wye at STA 0+74 (002-104 to 002-103) see Photo 40A & 40B	1,440 gpd		108,640 gpd	
March 27, 2001	Belmont and Ash St., replaced 8" pipe from STA 0+10 to 0+15 (018-072 to 018-073) see Photo 31A & 31B	SPL				

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			Infiltration Removed	Inflow Removed	Total I/I per quarter	Exfiltration Source
1st Quarter 2001	March 19, 2001	Coventry Cir., replaced pipe from STA 0+91 to 0+97 (004-039A to 004-039) see Photo 34A & 34B	SPL			
	March 16, 2001	Coventry Cir., replaced pipe from STA 1+49 to 1+54 (004-039B to 004-039A) see Photo 32A & 32B	SPL			
	March 1, 2001	Coventry Cir., replaced pipe from STA 0+37 to 0+42 (004-039A to 004-039) see Photo 33A & 33B	14,400 gpd			
	February 27, 2001	Coventry Cir., replaced pipe from STA 0+70 to 0+76 (004-039B to 004-039A) see Photo 30A & 30B	SPL			
	February 26, 2001	Coventry Cir., replaced service connection at STA 0+12 (004-039B to 004-039A) see Photo 26A & 26B	5,760 gpd			
	February 20, 2001	Colonel Bell Dr., replaced pipe from STA 2+41 to 2+44 (004-007 to 004-006) see Photo 29A & 29B	2,880 gpd			
	February 12, 2001	Coventry Cir., replaced service connection at STA 1+44 (004-039A to 004-039) see Photo 27A & 27B	4,320 gpd			
	February 9, 2001	Coventry Cir., replaced pipe from STA 1+79 to 1+82 (004-039A to 004-039) see Photo 28A & 28B	4,320 gpd			
	January 30, 2001	Colonel Bell Dr., replaced service connection at STA 1+16 (004-036 to 004-024) see Photo 22A & 22B	4,320 gpd			
	January 29, 2001	Colonel Bell Dr., removed service wye at STA 1+04 (004-025 to 004-026) see Photo 21A & 21B	SPL			
	January 31, 2001	Colonel Bell Dr., removed service wye at STA 0+33 (004-008 to 004-007) see Photo 23A & 23B	SPL			
	January 23, 2001	Colonel Bell Dr., replaced pipe from STA 1+34 to 1+37 (004-025 to 004-026) see Photo 25A & 25B	SPL			
	January 9, 2001	Colonel Bell Dr., replaced pipe from STA 0+62 to 0+64 (004-004 to 004-003) see Photo 24A & 24B	2,160 gpd		38,160 gpd	
4th Quarter 2000	Nov. 30, 2000	West Haven Dr., replaced service connection at STA 0+44 (001-029 to 001-028) see Photo 12A & 12B	720 gpd			
	Nov. 28, 2000	West Haven Dr., replaced 7' of 8" pipe, STA 1+85 to 1+92 (001-029 to 001-028) see Photo 20A & 20B	47 gpd *			
	Nov. 16, 2000	Elliot St., replaced 8' of broken pipe at house #184 (042-121 to 042-122) see Photo 15A & 15B	2,880 gpd			
	Nov. 14, 2000	Darren Dr., replaced pipe at leaking joint at STA 0+52 (001-028 to 001-026) see Photo 19A & 19B	SPL			
	October 26, 2000	Darren Dr., replaced pipe at leaking joint at STA 0+89 (001-028 to 001-026) see Photo 17A & 17B	SPL			
	October 23, 2000	Darren Dr., replaced 3' of cracked pipe STA 1+65 (001-028 to 001-026) see Photo 18A & 18B	SPL			
	October 17, 2000	Darren Dr., replaced 2' of broken pipe at STA 0+08 (001-028 to 001-026) see Photo 16A & 16B	SPL			
	October 5, 2000	Perkins Ave., replaced wye at STA 2+96 (063-009B to 063-005) see Photo 13A & 13B	SPL			
	October 3, 2000	Perkins Ave., plugged service wye at STA 3+30 (063-009B to 063-005) see Photo 14A & 14B	SPL			
	Sept. 15, 2000	Fitzpatrick Circle replaced 7' of 8" VCP	SPL		3,647 gpd	
3rd Quarter 2000	August 21, 2000	Vine St., replaced broken pipe and service STA 0+99 to 1+01 (037-093 TO 037-092) see Photo 8A & 8B	SPL			
	August 17, 2000	12 Orchard Ave., removed service connection at STA 0+79 (037-128 to 037-127) see Photo 9A & 9B	180 gpd			
	August 18, 2000	14 Orchard Ave., replaced service connection at STA 2+28 (037-128 to 037-127) see Photo 10A & 10B	SPL			
	July 29, 2000	Van Cliff Ave., replaced service at STA 0+31 (032-059 to 032-052)	SPL			
	July 27, 2000	Paulin Ave., replaced service at STA 0+93 (065-070 to 065-069) see Photo 11A & 11B	720 gpd			
	July 26, 2000	Burril St., replaced service & broken pipe from STA 2+18 to STA 2+19 (048-051 to 048-050)	2,160 gpd			
	July 19, 2000	Roan Crt., replaced service connections at STA 0+27 & 0+29 (019-041 to 019-040) see Photo 1a & 1b	SPL			
	July 19, 2000	Roan Crt., replaced service connection at STA 0+61 (019-041 to 019-040) see Photo 2a & 2b	SPL			
	July 18, 2000	Albany St., replaced leaking joints at STA 2+85 (001-019 to 001-018) see Photo 3a & 3b	2,880 gpd			
	July 13, 2000	Stubb Rd., replaced service connection at STA 0+39 (009-026 to 009-024) see Photo 5a & 5b	360 gpd			
	July 13, 2000	Stubb Rd., replaced service connection at STA 1+03 (009-026 to 009-024) see Photo 6a & 6b	360 gpd			
July 12, 2000	Stubb Rd., replaced broken pipe from STA 0+18 to 0+20 (009-026 to 009-024) see Photo 7a & 7b	2,880 gpd				
July 11, 2000	Windsor Cir., Replaced a service tap at STA 0+05 (031-092 to 031-091) see Photo 4A & 4B	28,800 gpd		38,340 gpd		
2nd Quarter 2000	May 2000	Winnifred Road, service replacement at STA 1+32 (015-025 to 015-024)	360 gpd			
	May 2000	Fitzpatrick Avenue, replaced 300' of 8-in VC pipe that was defective (005-145A to MH 005-143)	2,010 gpd *			
	April 13, 2000	Main Interceptor infiltration leak at Meadow Lane bridge crossing	45,000 gpd			
	?	Embassy Nursing Home had direct sewer connection to surface water			47,370 gpd	X
1st Quarter 2000					0 gpd	
ter	December 1999	Howard Street Sewer Replacement, 4,460 ft	29,882 gpd *			

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4th Quarter 1999	?	Snell Place Sewer Replacement of 15 ft	101 gpd *			
					29,983 gpd	
3rd Quarter 1999	July 1999	Country Club Lane Sewer Replacement of 400 ft	2,680 gpd *			
	July 1999	Country Club Place Sewer Replacement of 400 ft	2,680 gpd *		5,360 gpd	
2nd Quarter 1999	April 5, 1999	Bellaire St. MH 004-016 to 004-015 replaced 10' of 10" pipe between STA 1+83 & 1+89	67 gpd *			
					67 gpd	
1st Quarter 1999	March 29, 1999	Bellaire St. MH 004-016 to 004-015 replaced 6' of 10" pipe & 1 service between STA 1+37 & 1+41	40 gpd *			
	March 22, 1999	Bellaire St. MH 017-010B to 017-010A replace 6' of 10" pipe starting @ STA 0+28	40 gpd *		80 gpd	
4th Quarter 1998	September 1998	Warren & Keith, 60 ft west (Holmgren project)	402 gpd *			
	September 1998	Warren & W. Chestnut, 74 ft west (Holmgren project)	496 gpd *			
	September 1998	Warren & Calmar, 74 ft east (Holmgren project)	496 gpd *			
	September 1998	Warren & Market to Copeland, 1,135 ft (Holmgren project)	7,605 gpd *		8,999 gpd	
1st, 2nd, 3rd Quarter 1998	1998	Ellsworth (cured in place lining) 522 linear feet (017-125 to 017-118)	3,497 gpd *			
	January 1998	Disconnected CB connection to sewer at Stonehill College (at Duffy Academic Center)	41,200 gpd *		44,697 gpd	
4th Quarter 1997	December 1997	Warren & Clifton, north to Nilsson, 3,000 ft	20,100 gpd *			
					20,100 gpd	
3rd Quarter 1997	August 1, 1997	137 Perkins Ave, broken sewer leaking into a broken drain below				X
	?	Sewer overflow disconnected at siphon on Bartlett St.				X
	?	Sewer overflow disconnected on the East Side Interceptor				X
1st & 2nd Quarter 1997	August 1, 1997	Matfield Woods Estates, possible infiltration from a force main crossing of a brook			0 gpd	X
	April 1997	Sawtell Ave. Sewer Replacement of 300 ft with 8" PVC (between Glendale St. and Alden St.)	2,010 gpd *			
	March 1997	Wilmington St. Sewer Replacement of 100 ft with 15" PVC	670 gpd *			
	January 27, 1997	150 Lisa Drive Replaced 8 ft of sewer with 8" PVC Market Street Sewer Replacement	54 gpd *		2,734 gpd	
4th Quarter 1996	October 1996	Oak Green Apartments off Reservoir Street, disconnected a sewer MH from draining a surface water	900,000 gpd			
	October 1996	Biscayne Street Disconnected this abandoned private street from the city sewer because of several defects and constant I/I.	570,000 gpd		1,470,000 gpd	
3rd Quarter 1996	August 1996	Howard Street Bridge Reconstruction, replaced 150 ft under bridge with 12" DI	1,005 gpd *			
	August 1996	Terminal Place on Evans St., replaced 300 ft of sewer with 8" PVC	2,010 gpd *		3,015 gpd	
r	May 1996	- Replaced 50 ft from Warren Ave. going west with 8" PVC	335 gpd *			

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2nd Quarter 1996	May 1996	- Replaced 250 ft from intersection of Copeland with 12" DI	1,675 gpd *			
	May 1996	- Replaced 240 ft from Warren Ave. going east with 24" PVC	1,608 gpd *			
					3,618 gpd	
1st Quarter 1996	March 22, 1996	Augusta Ave. replaced 6 ft with 8" PVC	40 gpd *			
	February 29, 1996	Ash St. and Pleasant St. replaced 25 ft with 8" PVC	168 gpd *			
					208 gpd	
4th Quarter 1995	Dec. 27, 1995	68 Belair St. replaced 18 ft with 10" PVC	121 gpd *			
					121 gpd	
	Jan.-May 1995	Howard Street Interceptor Project				
		- Replaced 838 ft on Intervale St. with 21" PVC	5,615 gpd *			
		- Replaced 244 ft on Dyer St. with 21" PVC	1,635 gpd *			
		- Replaced 1,511 ft on Winter St., Douglas St., and Oscar Ave. with 18" PVC	10,124 gpd *			
	May 6, 1995	Rainville St. replaced 6 ft with 15" PVC	40 gpd *			
	April 1995	Sump pump removed at 55 Albert St.	8,640 gpd **			
	April 1995	Sump pump removed at 115/117 Ames St.	8,640 gpd **			
	April 1995	Sump pump removed at 234 Ames St.	8,640 gpd **			
	April 1995	Sump pump removed at 266 Ames St.	8,640 gpd **			
	April 1995	Sump pump removed at 60 Arthur St.	8,640 gpd **			
	April 1995	Sump pump removed at 122 Arthur St.	8,640 gpd **			
	April 1995	Sump pump removed at 21 Baltic Ave.	8,640 gpd **			
	April 1995	Sump pump removed at 70 Baltic Ave.	8,640 gpd **			
	April 1995	Sump pump removed at 185 Baltic Ave.	8,640 gpd **			
	April 1995	Sump pump removed at 155 Alden St.	8,640 gpd **			
	April 1995	Sump pump removed at 116 Ames St.	8,640 gpd **			
	April 1995	Sump pump removed at 260 Ames St.	8,640 gpd **			
	April 1995	Sump pump removed at 292 Ames St.	8,640 gpd **			
	April 1995	Sump pump removed at 105 Arthur St.	8,640 gpd **			
	April 1995	Sump pump removed at 136 Arthur St.	8,640 gpd **			
	April 1995	Sump pump removed at 40 Baltic Ave.	8,640 gpd **			
	April 1995	Sump pump removed at 77 Baltic Ave.	8,640 gpd **			
	April 1995	Sump pump removed at 38 Banks St.	8,640 gpd **			
	April 1995	Sump pump removed at 65 Lawton Ave.	8,640 gpd **			
	April 1995	Sump pump removed at 35 Louis St.	8,640 gpd **			
	April 1995	Sump pump removed at 22 Merton St.	8,640 gpd **			
	April 1995	Sump pump removed at 58 Merton St.	8,640 gpd **			
	April 1995	Sump pump removed at 96 Merton St.	8,640 gpd **			
	April 1995	Sump pump removed at 116 North Ave.	8,640 gpd **			
	April 1995	Sump pump removed at 154 North Ave.	8,640 gpd **			
	April 1995	Sump pump removed at 37 Saint Casimir St.	8,640 gpd **			
	April 1995	Sump pump removed at 30 Louis St.	8,640 gpd **			
	April 1995	Sump pump removed at 29 Merton St.	8,640 gpd **			
	April 1995	Sump pump removed at 68 Merton St.	8,640 gpd **			
	April 1995	Sump pump removed at 112 North Ave.	8,640 gpd **			

**Table 1**  
**City of Brockton, Massachusetts**  
**Consent Decree, Civil Action No.88-3194**  
**Response to Item 22(2)**  
**History of Sewer System Repair and Rehabilitation**

Annual Quarter	Dates Work Performed	Description of Work	Flow in gallons per day			
			Infiltration Removed	Inflow Removed	Total I/I per quarter	Exfiltration Source
	April 1995	Sump pump removed at 122 North Ave.	8,640 gpd	**		
	April 1995	Sump pump removed at 165 Ridge St.	8,640 gpd	**		
	April 1995	Sump pump removed at 24 Vermont Ave.	8,640 gpd	**		
	April 1995	Sump pump removed at 64 Banks St.	8,640 gpd	**		
	April 1995	Sump pump removed at 11 Bellevue Ave.	8,640 gpd	**		
	April 1995	Sump pump removed at 124 Bellevue Ave.	8,640 gpd	**		
	April 1995	Sump pump removed at 43 Claremont St.	8,640 gpd	**		
	April 1995	Sump pump removed at 107 Hovendon Ave.	8,640 gpd	**		
	April 1995	Sump pump removed at 115 Hovendon Ave.	8,640 gpd	**		
	April 1995	Sump pump removed at 164 Hovendon Ave.	8,640 gpd	**		
	April 1995	Sump pump removed at 247 Howard St.	8,640 gpd	**		
	April 1995	Sump pump removed at 10 Intervale St.	8,640 gpd	**		
	April 1995	Sump pump removed at 19 Westford St.	8,640 gpd	**		
	April 1995	Sump pump removed at 91 Banks St.	8,640 gpd	**		
	April 1995	Sump pump removed at 117 Bellevue Ave.	8,640 gpd	**		
	April 1995	Sump pump removed at 59 Bonney St.	8,640 gpd	**		
	April 1995	Sump pump removed at 25 Granite St.	8,640 gpd	**		
	April 1995	Sump pump removed at 114 Hovendon Ave.	8,640 gpd	**		
	April 1995	Sump pump removed at 121 Hovendon Ave.	8,640 gpd	**		
	April 1995	Sump pump removed at 243 Howard St.	8,640 gpd	**		
	April 1995	Sump pump removed at 267 Howard St.	8,640 gpd	**		
	April 1995	Sump pump removed at 15 Intervale St.	8,640 gpd	**		
	April 11, 1995	240 Colonel Bell Drive replaced 6 ft with 8" PVC	40 gpd	*		
	January 1, 1995	Sheridan St. replaced 10 ft with 10" PVC	67 gpd	*		
	September 7, 1994	Braemoor Rd. replaced 8 ft with 8" PVC	54 gpd	*		
	August 24, 1994	39 Southworth St. replaced 10 ft with 8" PVC	67 gpd	*		
	August 1994	Fisk St. Sewer Replacement of 50 ft with 8" PVC	335 gpd	*		
	June 6, 1994	Market St. replaced 200 ft with 10" PVC	1,340 gpd	*		
	June 1994	I/I Rehabilitation Conducted by Atlantic Development Corporation				
		- Disconnected driveway drain from sewer at 28 Amark St.	4,320 gpd	***		
		- Disconnected driveway drain from sewer at 306 Field St.	4,320 gpd	***		
	Dec. 15, 1993	16 Hill St. replaced 8 ft with 8 PVC	54 gpd	*		
	April 13, 1990	249 Boylston St. replaced 8 ft with 8" PVC	0 gpd	*		
	May 1, 1990	Pleasant St. at Belair St. replaced 18 ft with 10" PVC	121 gpd	*		

\* I/I estimate based on average I/I rate of 6.7 gpd/ft.

\*\* I/I estimate based on pump rate of 6 gpm.

\*\*\* I/I estimate based on pump rate of 3 gpm.

SPL: signs of previous leakage

Estimated Total I/I Removed: 2,761,976 gpd

Table 2

Brockton Inflow Removal Program  
Summary of Inspections, Repairs, and Potential Inflow Removal to Date  
6/5/2003

**PRIVATE PROPERTIES**

Properties Inspected	206
Properties with no illegal connections	55
Properties with corrective work pending	6
Properties with non-inflow related repairs complete	7
Properties with inflow related repairs complete	138
Potential gallons of daily inflow removed (gpd)	<b><u>3,008,571</u></b>

*NOTE - Property inspections are ongoing on a limited basis.*

**PUBLIC PROPERTIES**

Properties Inspected	30
Properties with no illegal connections	26
Properties requiring corrective work	4 (Schools, Fire Sta No.1)

*NOTE - Significant inflow reduction is anticipated at properties requiring corrective work (West, North, and South Junior High Schools, and Fire Station No.1)*

September 26, 2003

To: Jim Howell, Supt.

From: Mike Donovan, Foreman

RE: I&I 2003 second quarter report

CC: Greg Roy, CDM

Dear Jim,

The following I&I work was performed between June 26 and September 26, 2003.

- Hired a full time inspector to conduct door-to-door inspections on all properties tied-in to the municipal sewer system.
- Visited 1117 properties with the following findings,
  - Performed 748 inspections, 739 are in compliance, 27 had violations, 18 of which have come in to compliance, and 12 owners denied access.
- All properties that were in violation or denied access were sent letters explaining their infraction and how to remedy it.
- 21 sump pumps were removed form the collection system.
- 4 condensate pumps were removed from the collection system
- Replaced 22 ductile iron castings with new cast iron castings.

Future I&I work will include the following:

- Follow up on sump pump/excess wastewater remediation program.
- Removal of sump pumps.
- Replacing ductile iron castings with new cast iron castings.
- Continue monitoring the collection system.

Thank you,

Mike Donovan  
Foreman